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CONTENTS

NATIONAL POLICY AND ISSUES

- 'JINGJI YANJIU' on Economic Readjustment
(Gui Shiyong, Zhou Shulian; JINGJI YANJIU, 20 Jun 81)..... 1
- PRC Economic Journal on Socialist Road
(Zhai Songtian, Geng Taoke; JINGJI YANJIU, 20 Jun 81)..... 17

ENERGY

- Building of New Rural Energy Sources Discussed
(BEIJING RIBAO, 10 Jul 81, RENMIN RIBAO, 10 Jul 81)..... 27
- Use of Methane Gas, Solar Energy, Ren Zhixi
'BEIJING RIBAO' Comment
Sichuan's Small Methane Power Stations
- Uses of Solar Energy, Biogas Discussed
(GUANGMING RIBAO, 21 Jul 81)..... 31
- Development in Beijing Suburbs
Use With Flue-Cured Tobacco, by Li Genlin
Solar Energy, Biogas in Combination
- Briefs
- Soybean Milk From Solar Power 36
- Anhui Coal Mines 36

INDUSTRY

- Steps for Rapid Development of Cement Industry Outlined
(Ding Hong; SHUINI, 10 Jun 81)..... 37

Rural Market Survey Results on Bicycles, Sewing Machines, Watches (ZHONGGUO CAIMAO BAO, 11 Jun 81).....	45
--	----

FOREIGN TRADE

Cooperative Ventures Using Foreign Capital Elaborated (GUANGZHOU RIBAO, 12 Jul 81).....	47
--	----

Guangdong Leader Relays Central Views on Special Zones (Guangdong Provincial Service, 31 Jul 81).....	49
--	----

LABOR AND WAGES

New Wage Scale, Benefits for Guangzhou Sanitation Workers (Yu Hua; GUANGZHOU RIBAO, 7 Jul 81).....	51
---	----

NATIONAL POLICY AND ISSUES

'JINGJI YANJIU' ON ECONOMIC READJUSTMENT

HK061120 Beijing JINGJI YANJIU in Chinese No 6, 20 Jun 81 pp 9-17

[Article by Gui Shiyong [2710 0013 6978] attached to the Policy Research Office of the State Planning Commission and Zhou Shulian [0719 0647 5571] attached to the Industrial and Economic Research Institute of the Chinese Academy of Social Sciences: "On the Aims, Stages and Measures of Economic Readjustment"]

[Text] At present, the guideline of further readjustment of the national economy is being carried out actively throughout the country. This is a strategic change in our economic task, which concerns all fields of economic life and will be accompanied by a lot of new circumstances and problems. In solving all these, it is absolutely necessary to study how to set up appropriately the aims of readjustment, make sure what stages should be undergone to achieve these aims and work out the measures which are needed in different stages based on reality; and thus enable all jobs of readjustment to be carried on in close coordination, step by step and smoothly, while avoiding blindness and spontaneity which are likely to emerge.

Concerning the Aims of Readjustment

The aims of the current economic readjustment, for the near future, are to overcome the present economic difficulties and eliminate latent crises; fundamentally speaking, this involves changing the serious disproportion of the national economy which has gradually occurred in the last 20 years or more and, starting from the real circumstances in our country, set up step by step an economic structure which is fairly harmoniously proportioned, more effective in terms of economic gains, and will operate in a healthy cycle. The concrete characteristics of this kind of economic structure are as follows.

First, the proportionate relations between various sectors of the national economy, within different sectors, and between various links of social reproduction must mainly be well coordinated, and the industrial organizational structure must be comparatively reasonable. The economic structure which we have just mentioned mainly denotes the industrial structure; in other words, the qualitative connection and quantitative proportion between different industrial sectors under certain socioeconomic and production technological conditions. Only after comparatively appropriate relations have been established between various sectors can the two great divisions of social production be harmoniously developed and social reproduction

be carried on smoothly. On the other hand, the economic structure also includes the industrial organizational structure, that is to say, specialized collaboration among industrial enterprises. The latter concerns technological progress and the raising of labor productivity, and thus is closely related to the industrial structure. Under the present conditions in our country, no rationalization of the industrial organizational structure means no rationalization of the industrial structure.

Second, different factors of social production, including manpower, capital and material resources, are utilized in a relatively reasonable way; under the direction of the principle of a reasonable layout, economic predominance in various areas has begun to operate more effectively. For this reason, we must not only correctly handle the relations between various sectors, but also rationally deal with the division of work and coordination among different areas, and make use of various natural resources and the technological and economic forces of different areas according to their particular circumstances.

Third, the development of productive construction and the improvement of the people's livelihood are closely linked together, and help each other forward. A rational economic structure must not only maintain a healthy cycle which enables different sectors of the national economy to be coordinated and help each other forward, but also ensures a relationship of mutual coordination and mutual promotion between different links of social reproduction such as production, distribution, circulation, consumption, and so forth. In the final analysis, the healthy cycle presents itself in the form of a healthy cycle from production to consumption, and vice versa. Undoubtedly we have various criteria to judge whether an economic structure is rational, and how rational it is; nevertheless, the most important one is whether it can produce the best effect with the existing manpower and material resources, and thus ensure for the people as much stable improvement as possible in material and cultural life, on the basis of the continued growth of the national income.

It should be pointed out that the rationalization of the industrial structure can never occur without the readjustment of the relations of production and the reform of the economic management system. The development of social productivity, the formation of the qualitative and quantitative relations between different sectors of the national economy, all of them have to be realized under certain relations of production. Therefore, it is impractical to isolate productivity from the relations of production. Past practice has shown that under the socialist system, the economic management system is the solidification of the relations of production which has the most important impact on the development of productivity and the shaping of the characteristics of the industrial structure. The industrial structure has remained irrational in our country for a long time. This is due not only to the influence of the "leftist" guiding ideology which has brought about a lot of mistakes in working out the strategy of economic development, but also to the economic management system in which various serious problems and shortcomings can be found. In short, the conformity of the relations of production with productivity is an indispensable prerequisite for setting up a rational industrial structure. Certainly we cannot simply take the rationalization of the relations of production and that of the economic system as a sign of the rationalization of

the industrial structure. However, in judging whether an industrial structure is rational, we can never overlook the state of the relations of production and the economic system, we may even regard the healthy cycle which enables productivity and the relations of production to help each other as an indirect sign of the rationalization of the industrial structure. If we want to adjust the proportions of the economy to set up a rational industrial structure, we must readjust the relations of production and reform the economic system correspondingly. That is the very reason why we reiterate that we have to rely on readjustment for one thing and on reform for the other in opening a new path to develop the economy of our country.

Some people realize that modernization is a mark of the rationalization of the economic structure. In our opinion, such a view is not appropriate. The rationalization of the economic structure is a relative concept which may be suited to the different development levels of productivity. Under the socialist system, the realization of modernization will help the rationalization of the economic structure. However, we cannot consequently draw the conclusion that the rationalization of the economic structure can never be reached until modernization is accomplished. In fact, even if the modernization level is not so high, rationalization of the economic structure is still possible. In our country, the level of productivity was even lower than it is today during the period of "the first 5-year plan," but the economic structure was then comparatively rational because correct auditing principles had been adopted, and the plan was conformed fairly well with reality, and was well carried out. On the contrary, the accomplishment of modernization does not necessarily mean the rationalization of the economic structure. Although the economy has already been modernized in many capitalist countries, their economic structures still remain irrational or are even developing lopsidedly. Under the present conditions in our country, we can neither confuse the rationalization of the economic structure with the modernization of the national economy, nor separate them completely. It should be realized that the rationalization of the economic structure will serve as a great incentive to push ahead with the modernization cause. On the other hand, in the course of rationalizing the economic structure, we should eagerly, in accordance with needs and ability, adopt every advanced technique which helps to improve economic effect. We should particularly speed up modernization in the existing enterprises, and thereby push ahead with the modernization of the social economy step by step.

Some other people reckon that a rational economic structure is equivalent to a light structure. Such a view needs further deliberation. The light structure, which is mentioned in general as compared with a heavy structure, means accelerating the development of agriculture and light industry so as to make them account for a certain proportion in the national economy, say around 60 percent. Such a view emphasizes developing agriculture and light industry, and changing the present lopsided structure in which heavy industry predominates. Indeed they are completely correct on this point. However, it is inappropriate in many cases to take the fixed proportion that agriculture and light industry make up of the national economy as a criterion for the rationalization of the economic structure. The reason is that, at different economic levels, the relative proportions which agriculture and light industry account for the national economy may stand for very different absolute levels. The proportion of agriculture is actually very small in some

economically developed countries, but the production of agricultural products is comparatively high. Therefore, a small proportion of agriculture does not necessarily mean that it cannot conform with the development of industry and meet the people's needs. Whereas in many economically underdeveloped countries, though the proportion of agriculture is very large, the supply of agricultural products cannot meet the demand. This proves from another approach that a large proportion of agriculture does not necessarily mean a rational economic structure. In the last 2 years, in our country, the proportion which the output value of light industry accounted for in the total output value of industry has been raised very fast, the proportion of agriculture and light industry in the national economy is probably approaching 60 percent. However, our country's economic structure still has a lot of serious problems which need to be solved through a readjustment over quite a long period of time. All these facts show that the fundamental problem does not lie in how large a proportion agriculture and light industry constitute, but in whether their relations with the national economy are harmonious and whether such relations conform with the needs arising from the growth of the national economy and the improvement of the people's livelihood.

Some other people believe that a rational economic structure should be a type of "unfolded" [Shu Zhan 5289 1455] economic structure. Comrades who advocate this view call the existing economic structure an "extruded" [Ji Ya 2357 1090] type, based on the fact that various sectors of the national economy, with tense relations between them, are pushing each other out. These comrades are asking for the situation to be changed so as to turn the relations between various sectors of the national economy to an unfolded state. We feel that this view does not seem pertinent either. First, the concepts of "extruded" and "unfolded" are not precise enough, since people can define them in a variety of ways. Therefore, such concepts can hardly be precise indicators for judging the rationalization of the economic structure. Second, in conceptualizing the present economic structure of our country as "extruded," they have not managed to grasp the core of the problem. In other words, they did not point out the most fundamental weakness of our country's economic structure, that is, the serious divorcement of productive construction from the people's consumption. Moreover, the practices of pushing each other out to some extent among various sectors of the national economy do not exclude the effect of pushing each other ahead; while the structure of the "unfolded" type does not necessarily enable those sectors to push each other ahead either. Anyway, according to the real circumstances in our country, it is inevitable that tense relations will still remain for a long period of time between some major sectors of the national economy, and between some important links of social reproduction. Just as pointed out by Comrade Chen Yun, "we must take care of economic construction as well as the people's livelihood, there must be an equilibrium between them. It looks as if this kind of equilibrium will still remain basically rather unstable for quite a long period of time." "Our work is to keep this unstable equilibrium from overturning." These words, said in 1956, profoundly revealed a phenomenon of regularity in the economic development of our country. Now, 20 years or more have passed, but the observation of Comrade Chen Yun is still completely applicable. We can neither talk about rationalization irrespective of our national condition, nor totally disfavor the tense relations between economic sectors either. Our very task is to correctly handle these tense relations, keep the necessary balance between them, and give full play to their function in promoting each other.

On the Stages and Periods of Readjustment

In order to properly divide the whole readjustment into stages, and carry out the job step by step with each closely linked to another, we have to comprehensively analyze the problems existing in the present economic structure and the contradictions which we are confronted with.

What contradictions and difficulties do we have in our present economic life? In our opinion, the major ones are: 1. Agriculture and light industry are still backward. 2. Heavy industry is being lopsidedly developed and the internal proportions are unbalanced. 3. There is a shortage of energy as well as of some important raw materials. 4. Communications and transportation do not meet the needs of the development of the national economy. 5. Those sectors such as commerce, service trades and so on are backward. 6. There are contradictions between capital construction and financial and material resources. 7. There is disproportion between "bone" and "flesh." 8. The foreign trade development does not conform with the needs of the development of the national economy. 9. Quite a part of the people still live a difficult life and there are quite a lot of people in the towns awaiting employment. 10. We have had financial deficits in successive years; as we have issued too much currency, the prices of many commodities have gone up.

To deal with the above-mentioned contradictions, which are linked with one another we must find out how they are connected, differentiate the important from the less important and the urgent from the less urgent, and solve them one by one. In our opinion, to solve or basically solve these contradictions, the job can be divided into three stages and will take about 10 years before a comparatively rational economic structure will be initially established.

The first stage is to eliminate deficits and stabilize the economy. The aims of this stage include: to accomplish financial balance; to stabilize commodity prices; by reasonably allocating jobs to people in towns awaiting employment, actively promote the commerce and service trades, improve the relations between the "bone" and the "flesh," and thus further improve the livelihood of the people in the towns and countryside on the basis of the results achieved in the last few years.

Why do we consider eliminating deficits and stabilizing the economy as the central link of the present stage of readjustment? Because this problem being the comprehensive expression of various contradictions in current economic life, reflects the fact that the scale of capital construction has gone beyond the capacity of our country's financial and material resources, that the growth of the people's consumption has surpassed the developing speed of the production of consumer goods, and also that the various sectors of the national economy are so seriously out of proportion that reproduction cannot be carried on smoothly and is resulting in very bad economic effects. On the other hand, it has brought about inflation and the rise of commodity prices, which have affected the people's livelihood. This is the main problem we mean when speaking of the underlying crisis in the present economy. Without solving it, the other tasks economic readjustment will hardly be attainable. That will not only prevent the people's living standard from further improvement but will also counteract, through the rise of commodity prices, the good results already achieved, or even disturb the stability of society.

At this stage, the following measures, such as concentrating on the elimination of financial deficits, making every effort to reduce expenditure and broaden sources of income (in particular, vigorously promoting the production of consumer goods) can accompany and help the gradual solution of a series of other contradictions. We anticipate it will take about 2 years to complete the tasks of this stage.

The second stage: To readjust the proportions of agriculture, light industry and heavy industry. In this stage, emphasis should be placed on the further readjustment of the proportions of agriculture, light industry and heavy industry so as to basically harmonize the proportions of the two major divisions of social production and thus push ahead with the appropriate improvement of the people's livelihood. During this stage, national investment in capital construction will not increase noticeably, and energy production will not rise obviously either, some energy resources will even probably decrease a little bit. But, relying on the basis of the readjustment in the previous stage, and by giving full play to the latent power of the existing enterprises and vigorously economizing on energy resources, we will be able to turn the state of the serious disproportions of agriculture, light industry and heavy industry into a basically harmonious relationship, through various measures of readjustment and reform.

Why should we make the further readjustment of the proportions of agriculture, light industry and heavy industry the central link of the economic readjustment after the balance of revenue and expenditure has been achieved? Because industry and agriculture, being the fundamental material sectors in society, occupy a decisive position in the whole national economy at the present level of development of productivity in our country. They control the direction of economic development, and condition the development of other material production sectors and other social causes. The relations between agriculture, light industry and heavy industry basically embody the relations between the two major divisions of social reproduction, which are the most fundamental proportionate relations affecting the social reproduction process. Meanwhile, the harmonization of the relations between agriculture, light industry and heavy industry is the prerequisite for correctly handling the relations between accumulation and consumption. How large a portion of the national income can actually be used for accumulation and consumption respectively, in the last analysis, is decided by the social production structure consisting of the production of the means of production and the production of the means of subsistence, as well as by the possibility of change of this structure within a certain period. Now the accumulation rate is still too high, and should be lowered further. And the condition for this is to further harmonize the proportions of agriculture, light industry and heavy industry, and to readjust the relations between the production of the means of production and the production of the means of subsistence. In fact, the faults in the economic development strategy in the past were mainly due to the mishandling of the relations between agriculture, light industry and heavy industry. And this is exactly the key issue responsible for the irrationality of the economic structure at present. In the first stage of readjustment, in order to accomplish the balance of revenue and expenditure and the stabilization of the economy, the relations between agriculture, light industry and heavy industry must also undergo readjustment. Nevertheless, as changing the industrial structure takes time, we cannot expect to reverse the series disproportions of agriculture, light industry and heavy industry in the

first stage. After the completion of the basic tasks of the first stage, as the conditions for further harmonizing the proportions of agriculture, light industry and heavy industry are available, to deal with these relations should become the most important task of the second stage.

Of course, this in no way implies that tasks in other fields can be neglected. In the past, when placing emphasis on the problem of agriculture, light industry and heavy industry, we have always overlooked the functions of those sections such as commerce, service trades and so on, and neglected the role of scientific education, and even that of those infrastructure and vanguard sectors such as the construction industry, communications and transportation, and so forth. From now on, we should prevent such erroneous practices. In the course of harmonizing the proportionate relations between agriculture, light industry and heavy industry, the collaboration of other sectors is needed. Hence tasks in these sectors have to be strengthened correspondingly. Based on the appraisal of the present economic situation, we may envisage the completion of the tasks of this stage in about 3 years if the jobs are well done.

The third stage: The preliminary rationalization of the economic structure. In this stage, importance should be attached to changing the grave backwardness of the infrastructure, so that the energy industry, communications, posts and telecommunications services, and municipal construction can be developed relatively fast, comparatively harmonious relations can be established between and within agriculture and industry, and between other sectors of the national economy, and economic and social development can be better coordinated. On this basis, we will try to considerably enhance economic effect, enable the national income to achieve a fairly high rate of growth, and the people's livelihood to improve fairly substantially. May we suggest a tentative idea as follows: to raise the growth rate of the people's consumption level in the urban and rural areas to, or near, what it reached in the period of the "first 5-year plan," in other words, around 5 percent per year on average, in the later period of this stage?

In the second stage, the readjustment of the proportions of agriculture, light industry and heavy industry still have to be restricted by many objective conditions. First of all, the energy production will not be noticeably increased; second, communications and transportation will still remain rather weak; moreover, the backwardness of other infrastructure sectors will hardly be changed enormously. Apart from other causes, all these circumstances are closely attributable to the fact that the investment in capital construction is strictly limited. For this reason, while the proportionate relations between agriculture, light industry and heavy industry can only be readjusted to a reasonable extent within the limit of the above-mentioned conditions, quite a few problems will still exist in the economic structure as a whole. On the other hand, as social production and national income will not rise very fast, the growth of the people's revenue and the improvement in their living standard will still be quite limited. Precisely because of this, strengthening the energy industry, communications and transportation, and other infrastructure sectors will become the key problem which urgently needs to be solved to further improve the economic structure after the end of the second stage.

By the way, the basic conditions for this will be at hand by that time, since the proportions of agriculture, light industry and heavy industry will have been basically harmonized in the previous stage, both the development of production and the national financial state will have been substantially improved, and the economic status of enterprises and their operational and administrative level will have been improved and enhanced. Therefore, it will be possible to gradually and reasonably increase the accumulation on the premise that an appropriate growth of the people's consumption will be guaranteed, and to increase the investments in the energy industry, communications and other infrastructure sectors and speed up their development in accordance with our needs and ability. Take the energy industry for example, we have placed emphasis on economization in the first and second stage. Of course we will try our best to increase investment a little, but the amount will be limited after all, and it will take time to produce an effect. Only from the third stage on will we be able to attach due importance to the exploitation of energy while upholding economization. As everybody knows, our country is quite rich in energy resources, if only we can gradually release more funds, and rationally make use of foreign capital which is favorable to us, and do a good job of exploration and exploitation, we can be optimistic about the prospect of solving the energy problem.

Following the strengthening of the energy industry, communications and other technological structures, agriculture, light industry and heavy industry will be further developed under the new conditions, and the relations between them will be further harmonized as well. Starting from this basis, the primary rationalization of the whole structure of the national economy will be completed. Besides, as the relations of production have been gradually modified, the reform of the economic administrative system has been completed step by step, and the economic development of our country has turned to a new path, the development speed of production can be speeded up, the effects of economic activities will be much better than at present, and the growth of the people's consumption level will considerably exceed that in the two previous stages. In our opinion, we should make every effort to accomplish the tasks of the third stage in 5 years. Whether or not this idea is appropriate needs further deliberation.

It should be noted that the above-mentioned three-stage division is relative. These stages are differentiated from each other because of their own priority tasks, yet related to each other because of their common aims. For example, in order to eliminate financial deficits, we have to stress developing agriculture and light industry and readjusting the relations between agriculture, light industry and heavy industry. The promotion of energy production and communications and transportation also cannot only be undertaken in the third stage. It should also be noted that 2 years or more have passed since our plan of readjustment got under way soon after the third plenary session. This should be considered as well in deliberating the matters of the stages of readjustment and the tasks and interval of each stage. After the completion of the tasks of the second stage, we believe, the situation of serious imbalance in the important proportionate relations of the national economy will primarily be overcome, the latent crises completely eliminated, and the readjustment period--the period with readjustment as its key task, which we are concerned with at present--will be terminated. However, the rationalization of the economic structure will still be far from being entirely completed,

and should be continued. Nevertheless, the task of readjustment will not necessarily remain the core of economic tasks again, it can be dealt with in combination with other jobs. In fact, during the third stage mentioned above, the reform of the economic administrative system will become more and more important. Besides, even after the completion of the readjustment tasks of the 3rd stage, we will still have to readjust and improve the economic structure from time to time in accordance with the current domestic and international economic situation and with the change of social needs and that of the technical conditions of production.

Concerning the Measures for Each Stage of Readjustment

We have discussed above the tasks of the different stages of readjustment. In order to accomplish these tasks, we are required to deliberate and take various appropriate and concrete measures.

Because the tasks of readjustment concern every domain and field of economic life, and have to be carried on stage by stage over quite a long period, some principles which are to be shown below must be observed in working out the readjustment measures. First, all readjustment measures should embody clear-cut aims in accordance with the major tasks which are designated to be accomplished in each stage. Second, all measures must be synchronized to form a complete chain, so as to coordinate and enhance each other, aiming at solving the central task; mutual exclusion and counteraction must be avoided. Third, all stages must be coordinated. While various measures are divided by stages, continuity still has to be maintained to link them together. Fourth, an important characteristic of the current economic readjustment is that it is being carried out along with the reform of the economic administrative system. Therefore, the relations between readjustment and reform must be correctly dealt with so that they complement and enhance each other. Actually this is nothing other than the correct handling of the relations between the productive forces and the relations of production, and those between the economic base and the superstructure. Fifth, we must pay attention to economic effect in working out various measures. Every measure must undergo accurate calculation and strict proof, with advantages and disadvantages being weighed again and again, so as to achieve the greatest results with the least effort. In the past, one could ignore the costs as well as economic effect in endeavoring to complete a certain task. Such practices are not encouraged anymore.

Now we are going to discuss, stage by stage, some important readjustment measures which should be taken.

(1) Measures to be taken in the stage of economic stabilization.

All readjustment and reform measures in this stage must aim at the completion of the tasks to realize the balance of revenue and economic stabilization. On the other hand, they have to prepare the necessary conditions for the readjustment tasks in the next stage. In brief, the measures to realize the balance of revenue and expenditure are nothing other than reducing expenditure and broadening sources of income. Basically speaking, the most important things are to promote production and increase income. Based on this principle, the principal measures in this stage are as follows.

1. Attach great importance to promoting the production of consumer goods for daily use, while trying our best to ensure good agricultural harvests. We should start from famous brands and center around key cities, to speed up the development of those consumer goods which can produce results in a short period because of the urgent market demand, great return of currency and technological maturity.

The agricultural harvest has been fairly good in the last 2 years, which is the basis for the present good economic situation. However, in a country with a large population and scarce cultivated land like ours, we still have to pay due attention and can by no means lower our guard to the importance and arduousness of agricultural development. The agricultural problem cannot be regarded as solved and will still remain a problem of primary importance to the national economy in the future. The direction of the latest agricultural development to depend on correct policies in the first place and on science in the second has already been proved totally correct by practice. Therefore, we should carry on in this direction. We must have a full evaluation of the fact that the latent power to develop agriculture in various areas is still quite enormous. It would be absolutely possible to achieve steady growth in agriculture if only we could conscientiously uphold all the correct policies set by the central authorities, continuously sum up experience, promote and modify various forms of production responsibility systems in accordance with different places and situations, and promote diversified economy while taking good care of grain production.

To vigorously promote the production of consumer goods for daily use is an important measure in the current drive to improve the people's livelihood, and also a key act for the present readjustment of the economic structure. We should conscientiously carry out the important plan which the State Council has drawn up lately with regard to this problem. To promote the production of consumer goods for daily use can provide more and better industrial products for the market and for export, thus money can be withdrawn from circulation and the state's financial income and foreign exchange earnings can be increased. In particular under the circumstances that the purchasing power of peasants has been greatly raised in quite a lot of areas after good harvests, the increase in the production of consumer goods for daily use will serve as an important condition for stimulating the economic interflow between town and countryside, satisfying the needs of peasants and further spurring the enthusiasm for production. It should be noted that in such a country with an enormous rural population of 800 million like ours, the promotion of light industry, which provides consumer goods for daily use is indeed a measure of vital importance for strengthening the support of industry to agriculture and consolidating the alliance of workers and peasants. We should have a sufficient understanding of this. On the other hand, to promote the production of consumer goods for daily use can spur on the development of heavy industry as well, which will play an important role in improving the present situation of the irrational internal structure of heavy industry. Therefore, to vigorously promote the production of consumer goods for daily use is not only an important measure for overcoming the present financial difficulties and balancing market supply and demand, but also a long-term guideline for the further readjustment of the economic structure in the days to come.

2. In order to produce more consumer goods, the production capacity of all those heavy industrial departments, such as metallurgy, machinery, chemical engineering and so on, which can be more accurately forecasted and more easily shifted to other types of production, must be turned to serving the light industry market. Some of these departments may produce durable consumer goods, directly or in collaboration with other plants. Nevertheless, the most important thing is to provide more and better raw materials, technical equipment and other technical services for the development of production of consumer goods for daily use. We must try our best to boost the production of light industry and that of those heavy industry departments that render service to the light industry market so that their growth can partly compensate for the temporary decrease in heavy industrial production due to the cutting down of capital construction, and hence ensure a fair growth of the whole industrial production and a bigger increase in the national financial income.

3. Strengthen the rational distribution of energy resources as well as strict administration, and push ahead with the technological reform in energy economization step by step. The energy problem is a very important one in the present drive of promoting production and increasing financial income. The guiding principle for solving the energy problem is to attach equal importance to exploitation and economization. In the near future, we should give priority to economization and make every effort to save oil and other energy resources.

4. Vigorously promote the commerce and service trades, actively develop the collective and individual economy in towns and countryside, try hard to increase the production and supply of nonstaple food in towns, boost economy, make things convenient for the people's livelihood and open up all avenues of employment. It should be noted that the capacity to recruit labor power in this way is quite great. A great development can be achieved if only the proper guideline and policies are adopted and all positive elements motivated. This is another important measure to improve the people's livelihood in this stage.

5. The work of cutting down the scale of capital construction must be upheld well. In order to realize the balance of revenue and expenditure as soon as possible, enormously cutting down the investment in capital construction is an absolutely necessary measure. At the end of last year, the central authorities made the decision of once-and-for-all drawing back with regard to this problem in deadly earnest. Therefore, we must be firm and persistent in carrying out this decision. Not only the contemporary investment but also the total scale of the projects under construction have to be cut down. On the other hand, it is necessary to rationally allocate investment funds and try hard to improve investment effect. Apart from the above, at present, we have to conscientiously deal with those problems that arise after the suspension or closing of construction projects and work hard to minimize the loss of the state's property.

6. Reduce administrative outlays and cut down group purchasing power. All business units which survive on revenue must do their utmost to become enterprized [Qi Ye Hua 0120 2814 0553]; all those which cannot be enterprized should adopt the system of taking full financial responsibility.

7. The policy of closing, suspending, merging and shifting must be resolutely and cautiously enforced in the enterprises that are competing with advanced ones for fuel and raw materials, producing inferior goods with great consumption and high cost and suffering from enormous loss. For some others which have to be maintained yet cannot turn loss into profit in the near future, the system of taking full responsibility for losses must be adopted.

8. Carry on the reform of the economic administrative system which is advantageous to readjustment. Consolidate, substantiate and perfect the reform measures of expanding enterprise autonomy. Strengthen the systematic direction and control by the state while activating the economy. Since great importance must be attached to the reorganization and integration of enterprises, we must actively enforce the restructuring of enterprises with concentration being put on the requirement to promote the production of consumer goods for daily use, organize companies and integrated complexes of various forms in accordance with the principle of coordination between specialized departments and economic rationality. We must create conditions to gradually adjust the prices which are really unreasonable, of a small number of means of production, on the premise that commodity prices are kept stable. In the meantime, we should pay enough attention to making use of the taxation lever and other economic levers to condition the economic relations between enterprises and the state, and between enterprises themselves, so as to improve the situation of disparity in suffering and joy, and ensure a stable financial revenue to the state. Put into force the system of employing funds with interest compensated, by levying resources tax, conditioning tax and income tax for all units and individuals who are profiting from sales revenue. Change the present situation whereby the central authorities suffer from financial deficits while local units are benefiting from surplus, by readjusting the base quantities and limits set for full responsibility in central and local units, according to the real circumstances. At last, we must improve the foreign trade price setting system, carry out the system of accounting at different levels for foreign trade and the unity in action in dealing with foreign businessmen, restrict or even prohibit high-loss commodities from being exported, work hard to reduce the loss in foreign trade and make every effort to turn loss into profit.

9. Put rectification in its due position. Do a good job in rectifying the existing enterprises so as to give full play to them. Enterprise rectification should concentrate on improving operational management and raising economic effect. The following tasks must be conscientiously dealt with: (1) Strengthen fundamental jobs such as calculation, original record, statistics, quota setting and so forth. (2) Comprehensively set up and strictly carry out various systems of job responsibility. (3) Comprehensively put into force the economic accounting system. (4) Correctly carry out the principle of distribution according to work, enlarge the area of piece rate wages and modify the bonus system. (5) Strengthen democratic administration.

While rectifying enterprises, we must also rectify financial and economic jobs, enforce financial and economic discipline, and resolutely ban speculation and profiteering and crack down on smuggling activities.

10. Strengthen the training of workers and staff members. Transform in a planned way a number of closed or suspended enterprises into technical secondary schools and technician training schools, enforce a regular rotational training system for staff and workers, try hard to raise their ideological and political consciousness and technical level.

11. Appropriately control the growth of consumption funds according to the feasibility for developing production. Stop reckless issuing of bonuses and the practice of price bargaining.

12. Strengthen economic legislation. Establish and amplify executive and supervisory setups.

13. Unfold extensive economic investigations in a planned way. Make a thorough study of the conditions of our state, try to find out the real situation of various trades, enterprises and products, and forecast changes in market demand. Based on comprehensive balance, work out the readjustment and reorganization plans for different trades and regions, the draft and plan for price adjustment, plans concerning the systems of materials, labor, finance, banking and so on, so as to prepare well for the readjustment and reform in the second stage.

(2) The measures to be taken in the stage of harmonizing the proportions of agriculture, light industry and heavy industry.

All measures to be taken in this stage must center around the requirement to change the serious disproportions among agriculture, light industry and heavy industry, and around the full functioning of the latent power of the existing enterprises. On the other hand, they should aim at changing the investment structure and preparing for the readjustment task of the third stage.

1. Continue to vigorously promote agriculture. On the basis of ensuring steady increase in grain production, try harder to boost the diversified economy in rural areas, and hence provide better conditions for developing light industry and improving the people's livelihood, and gradually decrease the quantity of imported grain and agricultural raw materials.

2. Light industry must be developed in a comprehensive way. While raising the production of general consumer goods, boost the production of medium and high grade commodities. Improve the quality of products, increase their types and variety, bring forth a number of new products and push the popularization of electronic products. In order to raise the proportion of industrial raw materials and push ahead with the development of heavy industry by promoting light industry, the light industrial raw materials structure has to undergo a relatively great change. The food industry and fine processing of agricultural raw materials should be vigorously promoted, strive to make the tax gain surplus arisen from developing the industrial production which relies on agricultural raw materials, compensate for or exceed the increased outlay caused by bargaining and price increases due to the purchasing of agricultural products in excess of the quota, and thus stabilize price compensation at the present level.

3. The heavy industry structure must undergo substantial readjustment as conditions allow so that it can conform with the development of agriculture and light industry as much as possible.

The machine building industry must further be oriented toward the production of consumer goods, the technological restructuring of old enterprises, national defense and export trade. Readjusting the orientation of service of the machine building industry is the key link to readjusting the whole industrial structure. On the other hand, it is also an important condition for the steady and stable growth of heavy industrial production in the course of readjustment. In the past, the machine building industry did not get enough jobs to utilize its full production capacity. This situation must be changed in this stage and a fair rate of growth is supposed to be achieved. To reach these aims, (1) according to the new circumstances, actively expand the production of various marketable machines for light industry and agriculture including forestry, animal husbandry, sideline production and fishery, so as to boost light industry and agriculture. (2) Strive to enforce equipment renewal and technological restructuring in old enterprises on the basis of enterprise restructuring. Fully make use of the production capacity of the machine building industry to serve the restructuring of old enterprises and speed up the modernization of the existing enterprises. (3) Actively pursue sales on the international market. Increase the export of electrical products by a big margin so as to change the export structure and raise the foreign exchange revenue. (4) Enforce a protective tariff policy. The importation is strictly prohibited of all mechanical equipment which can be produced and is subject to quality control domestically. The emphasis is to be placed on raising the level of the domestic machine building industry when introducing new technology. All these measures should be adopted consecutively in the first stage and be comprehensively carried out in the second stage in the expectation that obvious results can be achieved.

The chemical industry should concentrate on developing the means of production for agriculture such as highly effective compound fertilizers, highly effective agricultural chemicals with minimal side effects, and so on. In the meantime, we must strive to expand the production of raw materials for light industry and that of basic chemical industrial products, and make the chemical industry a strong backup for developing light industry.

The civil construction industry and building material industry must be greatly developed. Various ways should be adopted to gradually solve the problem of commercialization of urban housing.

The production structure and orientation of service of the metallurgical industry will also have to undergo a corresponding readjustment so that it can provide suitable and good-quality metal materials to agriculture, light industry, the machine building industry, the construction industry and other departments of the national economy.

4. While continuing to strengthen energy control, concentrate on technological restructuring for energy saving. Further take care of the technological restructuring of substituting coal for oil, and spur the drive to eliminate equipment which wastes much energy and to evolve new products. Strive to considerably lower

the per unit energy consumption of various products. These measures form an important condition for maintaining the steady growth of production at this stage.

5. Continue to limit the scale of capital construction. Employ a portion of the investment saved in restructuring the existing enterprises, and the rest in the construction of those weak links such as energy, communications, and so on.

6. Continue to strive to promote commerce, service trades and urban public utilities. Continue to develop the collective and individual economy in towns, try to raise their proportions in the national economy to the level which was reached in the "first 5-year plan" period.

7. Comprehensively enforce enterprise reorganization, systematically group all enterprises which should and could be organized together into companies and integrated bodies of different forms, primarily realize the rationalization of the organizational structure, create conditions for the vigorous enforcement of technological restructuring and for the further reform of the economic management system.

8. With consumer goods prices basically stabilized, take appropriate measures to adjust the prices of the means of production, and primarily change the present situation whereby the price system is extremely unreasonable.

9. Enforce the new planning system step by step, further bring into play economic levers such as pricing, taxation, credit, and so on, under the state's systematic guidance, and let economic legislation function as well.

10. Comprehensively reform the scientific and technological systems, make science and technology play a more active role in boosting economic development.

(3) Measures to be taken in the stage of preliminary rationalization of the economic structure.

1. While developing upper-level industries, vigorously strengthen and improve the construction of the infrastructure sectors such as energy, communications, posts and telecommunications, and so forth, to ensure the smooth and steady growth of the national economy.

2. With the continuous growth of agriculture and light industry guaranteed, enhance the construction of heavy industry, in particular the construction of mines, raw material production, chemical industry and so on, in accordance with the requirement to further promote agriculture and light industry and to let heavy industry develop in an internally harmonious way.

3. Starting from the basis of the steady growth of the national income, we should increase accumulation on the premise that the people's consumption grows normally. On the other hand, we must rationally expand the scale of capital construction and allocation of investment.

4. As the major proportionate relations of the national economy are taking a turn for the better and the state's financial and material resources are on the increase, a big readjustment of the price system can be carried out.

5. On the basis that the price system has been initially rationalized, we can enforce to a greater extent the reform that substitutes the system of taxation and responsibility for one's own profits and losses for that of turning profit over to the state in companies, enterprises and integrated bodies, and enhance the reform of other economic management systems concerned as well, in an effort to primarily accomplish in this stage the major tasks of systems reform.

6. While developing material production, more vigorously combine economic development with social development by employing more funds and material in promoting science, education, cultural activities, public health and other social utilities.

What we have deliberated above is tentative and quite immature. Our major aim is to cast a brick to attract jade in the hope that the studies and discussions on the problems of economic readjustment can be further intensified so that they will help us in our actual work.

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[Article by Zhai Songtian [5049 2646 1131] and Geng Taoke [5105 2711 4430] drafted in April 1981 and revised May 1981: "An Important Theoretical Problem Concerning the Principle of Adhering to the Socialist Road"]

[Text] If we are to adhere to the socialist road, we must have an unshakable faith in socialism. This is of major importance to all revolutionaries. However, this unshakable, clear-cut faith does not come into being just like that, but is based on a deep understanding of the Marxist theory historical dialectics and scientific socialism.

Can there be said to exist in this plot of land called China a crisis as far as our faith in socialism is concerned? Naturally the problem is not as simple as that. Due to the unprecedentedly close attention paid by the 1 billion people to the cause of socialism and the ability of the Chinese communists, the mainstay of the Chinese revolution, to withstand the tests which any stormy sea presents the lofty ideals of socialism and communism remain unshakable. However, within society as a whole, there is also no denying the fact that there are certain people who are experiencing various problems in having faith in socialism. For example, some people have pointed out that, according to the laws governing the development of human society brought to light by Marx, history should advance through the sequence of a primitive society, slave society, feudal society, capitalist society, and communist society. Is not the fact that China became a socialist society directly without having been a capitalist society contrary to the laws governing the development of human society? Others are of the opinion that the development of human society presupposes the development of the productive forces and that the productive forces determine the production relationships. Since China's backward productive forces obviously do not have the objective material base for the realization of socialism, and since they are unsuited to the advanced socialist production relationships, is this not similarly contrary to the laws governing the development of human society? In short, there has arisen in these comrades' minds the following question: Was the establishment of socialism in China premature? Can the difficulties inherent in the early establishment of socialism ultimately be overcome? What sort of future can China expect to have?

How should we in fact handle this problem?

After Marx and Engels, by applying dialectical materialism and historical materialism which they founded had conducted much painstaking research into the vast complexities of human society, they pointed out that the development of human history is, like any other object, subject to its own fixed laws: beginning with primitive society, right through the slave, feudal and capitalist societies, up to the transformation into a communist society, we can discern the general law governing the ascent of man. This law, which was brought to light by the founder of Marxism, not only confirms past historical developments, it will also confirm future historical developments. Undoubtedly, this is an objective law of universal significance.

However, we need delve just slightly deeper into the study of the Marxist laws governing the government of human history to discover that the development process of human society is by no means a simple mechanical movement but a living dialectical development process. If we are to correctly understand and grasp this process, we must gain a clear idea of the difference between the logical sequence reflecting the general law governing the process of history and the concrete historical sequence of the development of certain nations and countries, and also the connection between the two. Looking at the overall picture, the logical sequence of history and the concrete historical sequence agree with one another, because the logical sequence of history is merely the abstraction and condensation of the concrete historical sequence. The logical sequence reflecting the laws governing historical development cannot possibly run counter to the course of history. However, the logical sequence of history is not exactly the same as the concrete historical sequence. The difference between the two lies in the fact that the logical sequence of history has discarded the historical sequence molded by externalism and chance and "is a reflection of the process of history in an abstract, theoretically consistent form."¹

The whole of human society, when viewed in the light of its historical development process, advances strictly according to a logical sequence. However, as far as the concrete sequence goes, when it comes to speaking of a country, nation or locality, the situation is sometimes not like this at all. As Engels said, "History often advances by leaps and along winding paths."² Lenin also clearly pointed out: "The general law governing world historical development not only does not preclude individual development stages from showing their peculiarities within a development form or sequence, but on the contrary, it presupposes them."³ In the history of the world, as for Rome and Greece, in advancing from a primitive society to a slave society, and then to a feudal society, their development process and the logical sequence of history completely correspond. As for the Spartans and Germanic peoples, together with the Romanians and peoples of certain other countries lying in the valley of the Danube River, their development process and the logical sequence of their history do not correspond. Further, the historical development of each of these nations and countries has different characteristics.

Looking at the situation as a whole, many countries in the world have, in the later stages of primitive communes, experienced agricultural communes, this "last stage of the primary social formation." Because agricultural communes possess the characteristics of both public and private ownership, they have become the bridge linking public-ownership-based primitive society with private-ownership-based class society. Marx pointed out: "Since agricultural communes are the last

stage of the primary social formation, they are also the transitional state on the path toward the secondary formation, that is, they mark the transition from a society based on public ownership to a society based on private ownership. It goes without saying that the secondary formation includes a series of societies built upon slavery and serfdom." The ultimate effect of agricultural communes "depends entirely on the historical environment."⁴ Obviously, the "historical environment" which Marx speaks of here included many historical conditions. Among these, the first to have a decisive effect is the tendency for the form of the internal land ownership system to change. If the principle of private ownership gains dominance over the principle of public ownership, the free private land ownership system will have replaced the communal collective ownership system, paving the way for the development of a slave society, which was the case with Greece and Rome. If the free private land ownership system has not yet come into being, or the conditions for its smooth development are not present, but due to military conquest by other nations, the conquered people and their land are treated as the public property of the conqueror's communes, this will lead to the establishment of a serf society, which was the case with the Spartan and Germanic peoples.

There are some countries in Europe which, with agricultural communes as their base, naturally established dictatorial state regimes and then became feudal serf societies directly. This was the case with the many duchies on the river Danube. "There, the original mode of production was built upon the basis of the communal ownership system, but this communal ownership system was not the same as the Slavic version and was also completely different from the Indian version. One section of land was a free private field, cultivated by the respective commune members, while another section of land was a public field, cultivated by the commune members communally. ...In due course, prominent military and religious leaders seized the communes' landed estates, thus also seizing the labor expended on the public fields. The labor expended by the free peasants on the public fields had become corvée labor carried out for the pirates of the public fields. Thus the relationships of serfdom were developed in its wake."⁵

Although the concrete form in which these nations and countries were directly transformed from primitive societies into feudal societies without ever having been slave societies varied. All these examples occurred during the same historical period, namely the period when the ancient slave civilizations in the whole world were declining and the production relationships of feudal serfdom had already developed. From this we can see that all changes in the social form of a nation or country are closely linked to characteristics of the period in which they occur. The tendency for the social form (here the social form refers to the mode of production which has attained a ruling position, not overlooking the factor that in these countries and nations, other social production relationships existed) to leapfrog in some areas is also attributable to this.

Is this tendency for human societies to leapfrog reasonable? It definitely is, because this leapfrogging has still not transgressed the common path of human historical development. It seems at first glance to be a contradiction in terms to acknowledge both the truth of the logical sequence of history and the peculiarity shown by history at individual stages in its development. In fact it is not. Facts

have shown that only by acknowledging the reasonableness of the fact that individual stages of historical development will show peculiarities in the form and sequence of their development can we be said to be historical materialists in outlook.

Historical materialism also asserts that each social form, by changing from a low to a high level and from a simple to a complicated form, is advancing in accordance with the law that the production relationships must be suited to the nature of the productive forces. Marxism once summed up social relationships as being production relationships and production relationships as being the level of the productive forces. It further illustrated with reliable evidence that "any change in the social system and any reform carried out in the ownership relationships are the necessary consequences of the development of the new productive forces which are no longer suited to the relationships of the ownership system."⁶ Therefore, when discussing problems concerning the relationship between the laws governing the development of human society and Chinese socialist society, regardless of whether problems are being raised from the point of view of the logical sequence of the development of human society or of the productive forces, we are essentially raising and expounding from different angles one and the same problem, namely that of whether the establishment of socialism in China has violated a basic principle of Marxism.

That the productive forces determine production relationships is indisputable. The productive forces have always been the driving force, behind social development and progress, and the criterion for measuring the development level of the productive forces has been the means of labor. Marx pointed out: "The difference between the various economic eras does not lie in what they produced, but in how they produced it and what means of labor they used to produce it. The means of labor are not only the instruments for measuring the development of the human labor force but also the indicator of the social relationships which labor relies on for its operations."⁷ Whatever the means of labor the appropriate production relationships will necessarily come in being.

However, this correlation between the productive forces and the production relationships has a particular form of manifestation under particular historical conditions. The movement of contradictions between them is not a mechanical movement which simply matches up one thing with another. Taking as an example the rise of the capitalist production relationships, the first capitalist revolution in the world successfully took place in England in 1640. However, the tools of production were at the time exactly the same as the tools used in feudal societies. The main ones were still hand tools. Marx said: More workers worked at the same time and in the same space (or we can say at the same place of work) in order to produce the same type of commodity under the auspices of the same capitalists. Both historically and logically speaking, this is the starting point for capitalist production. As far as the mode of production itself is concerned, as for example in the early workshop handicraft trade, apart from the fact that there were more workers employed at the same time with the same capital, there was practically no difference between this and the handicraft trade under the guilds."⁸ Steam engines, an important symbol of the industrial revolution, were invented by Watt in 1769 (simple movement) and in 1772 (complex movement). This advanced production tool still had to wait some time before it was used in industrial production. It was not until the late 18th century that it came to be widely used in the textile industry and the chemical,

excavation, metallurgical, machine building and other such sectors. It was also not until this period that it laid a material technological base for the capitalist system, enabling the capitalist system to finally triumph over the feudal system and thus attain the ruling position.

From the time the capitalist production relationships attained the ruling position in England to the time a suitable major industrial material base was set up, there was a time lag of about one-and-a-half centuries. This proves that in establishing a suitable material base, it is not unusual for a new social system to require a historical process. Due to differing concrete situations among the various countries, this process requires differing lengths of time. We can see that it is quite normal for our country to require a historical process to establish a material base suited to the socialist system.

We can further see from the history of the birth and development of capitalism in England that the tools of production do indeed ultimately determine production relationships. However, the tools of production are not the only factor to have a decisive effect on the productive forces. Why was it that in the early period after the birth of capitalism in England, when there was no marked change in the tools of production and feudal society, the social productive forces underwent an important change? This was because the capitalist workshop handicraft trade revolutionized the mode of labor of the individual, and cooperation itself gave rise to new productive forces. This transformation of the social production relationships brought about by the productive forces created by cooperation itself was still in accordance with the law that production relationships must be suited to the nature of the productive forces. It in no way violated this objective law. Was it for this reason that some people complained that capitalism should not have emerged in England so soon? Apart from the toppled class of feudal lords, there was probably no one else around making this complaint.

The birth of the socialist society in our country took place in accordance with the objective laws governing human historical development and came about under the effect of the basic law that the production relationships must be suited to the nature of the productive forces. We know that even though the level of economic development in our country is low because of the fetters of long feudal rule, from the time Western technology was introduced in the Qing Dynasty up until the eve of liberation, large-machinery production was already in existence in China and was developing over this period of about 90 years. Modern industries already accounted for 17 percent of the total output value of industry and agriculture in the whole country, and industrial workers numbered over 3 million. The development process of large-machinery production in China was different from that of countries overseas. It had its roots in the military industries operated by officials of the Qing government. Not until afterwards did we have the heavy and light industries operated by businesses under the supervision of officials and also those operated jointly by businessmen and officials. Only eventually did we see the development of private capitalist industries consisting mainly of light industries and did they reach a fixed standard. For example, all soda-making industries set up by certain patriotic national capitalists, regardless of their production, equipment, management or technological level, had by the 1840's reached advanced levels compared with identical products on the international scene at the time.

Another characteristic of large-machinery production in China was that it was concentrated in the hands of the imperialist class and the bureaucratic comprador bourgeoisie. They monopolized the economic lifelines of China. These reactionary and backward production relationships severely hindered the development of the productive forces. There was an urgent need to destroy these degenerate production relationships if the productive forces were to be developed. According to a basic Marxist point of view, both human and material factors are included within the productive forces, and only a social system which makes full and reasonable use of both human and material resources in the production process can be called an advanced social system. Man was the most active of the social productive forces in China at the time. Regardless of whether he was one of the less common industrial workers, a proletarian or semi-proletarian from the vast countryside, or one of the other laborers, he was subjected to enslavement and oppression of a kind that far exceeded that to which European and American laborers were subjected. History had already reached the state where the ruling class of the day definitely could not continue to rule and the ruled class definitely could not continue to live. The social productive forces were in a state of atrophy and were in desperate need of liberation. These forces became an enormous driving force in the transformation of the then degenerate and declining production relationships. Social mention must be made of the fact that poor peasants and farm laborers accounted for 70 percent of the rural population of China. Under the leadership of the Chinese Communist Party and having been tempered in the protracted revolutionary struggle, they soon became reliable allies of the proletariat and the main force in the revolutionary ranks of China. They looked forward to the birth of an independent, democratic, free, happy and strong new society. Under these circumstances, the worker movement were united quite naturally and forged into one body. This became an evident characteristic of the Chinese revolutionary movement. Therefore, proceeding from the realities of Chinese society, in 1949, when the new democratic revolution was victorious, we already had the necessary economic and political preconditions for embarking upon the socialist path. To be sure, our material base was not completely suited to the demands of a mature socialism, but this unsuitability, when compared with the situation in England in the early period of the bourgeois revolution, showed a much higher degree of "suitability." If this was the case even in the capitalist revolution then the proletarian revolution, the greatest in human society, should not abandon its own historical mission either. Of course, it should vigorously propel society forward. As Lenin pointed out when speaking of the October revolution: "If we say that since we acknowledge the fact that our economic 'strength' is not suited to our political strength and we should 'therefore' not seize political power, then we have made a cross error. So-called 'blinkered men' reason in this fashion. They have forgotten that there will never be such a thing as 'suitability' whether we are talking about developments in the natural world or about developments in society. This kind of adaptation can never come about. Only after numerous attempts--of which every individual attempt will be one-sided and suffer from certain errors of maladjustment--can a perfect socialism be established with the cooperation of the proletarian revolutions in the various countries of the world."⁹

In our investigation into why China should bypass the capitalist stage and embark upon the socialist road from a semifeudal, semicolonial society, we cannot depart from China's specific historical conditions and the overall international scene at

the time. Ever since China got rid of slavery and became a feudal society, its economy, politics and culture have for a long time developed at a snail's pace. Of course, we should be certain in our minds that, regardless of how lengthy the duration of the process of feudal society, China would sooner or later have entered the phase of a capitalist society. As Comrade Mao Zedong pointed out in his analysis of the nature of Chinese society: "The development within Chinese feudal society of a commodity economy already carried within itself the seeds of capitalism. If it had not been for the influence of foreign capitalism, China would also have gradually developed into a capitalist society."¹⁰ However, with the outbreak of the opium wars in 1840 and the invasion by Britain, France and other such imperialist countries, the possibility of China gradually entering the phase of a capitalist society was dashed. "The purpose of the imperialist powers' invasion of China was definitely not to change feudal China into a capitalist China. The purpose of the imperialist powers was the opposite of this. They wanted to transform China into a semicolon or colony."¹¹ After we achieved the victory of the new revolution on the semifeudal, semicolonial base, in the light of developments in the world, capitalism had long entered the imperialist era. At that time, any oppressed nation or country that wanted to establish an independent capitalist society would meet with obstruction and suppression from imperialism. There was really no way of shaking off the position of a country enslaved and oppressed by imperialism. It can be said that the international conditions prevalent at the time had already blocked the path for China to enter the phase of capitalism. At the same time, because the big bourgeoisie among China's bourgeoisie had long been embraced by imperialism and become the allies of the landlord class, they became accomplices in colonialism and the mainstay of feudal rule. Further, due to the weakness and compromising nature of the national bourgeoisie, they could not assume the task of leading to the end an anti-imperialist, antifeudal bourgeois democratic revolution. Although leading figures among them like Kang Youwei and Yan Fu had made indefatigable efforts in their quest for truths from the West to save their country and to embark upon the path towards capitalism, as it turned out, this was nothing more than wishful thinking. As for the revolution of 1911 led by the pioneer of the great bourgeois democratic revolution, Dr Sun Yat-sen, although it did overthrow the monarchy, and establish the Republic of China, it failed to change the semifeudal, semicolonial social nature of China. Both the actual economic and political situations in China and the characteristics of the historical period of the world at that time determined the fact that China could not enter the phase of a society where capitalist production relationships reigned supreme and that China had to bypass this stage on its way toward the bright road of socialism. This is the inevitable consequence of our historical development and the only option open to the 1 billion Chinese people. But up to this day, some people are still thinking of establishing capitalism in China and some cannot comprehend this historical choice. It can be seen that they understand neither the history of China nor its situation and even less the characteristics of the era. This shows extreme childishness on their part.

There is no doubt that we must also realize that this leapfrogging and this backwardness of the productive forces in the historical development of society has brought about a peculiarity in the future consolidation and development of our society. Particularly in the case of a country like ours which proceeded directly to the stage of a socialist society from a semifeudal, semicolonial society, there

must be many characteristics during the process of developing socialism that are peculiar to us, the most prominent of which is the arduousness involved in building socialism. After the victory of the October revolution, Lenin, with Russia's backwardness in mind, pointed out: "Compared with the various advanced countries, it was easier for the Russian people to start the great proletarian revolution, but to carry it through to the final victory, that is, to complete the construction of a socialist society, is rather more difficult."¹² Old China was much more backward than imperialist Russia. Our task of building a socialist society is obviously more difficult and arduous than that of the Soviet Union. In particular, the backwardness of scientific and cultural education, the fetters of the long period of feudalism and natural economic thinking, the entrenched bad practices of small-scale production and the influence of force of habit have brought with them even more severe obstacles to economic development. However, due to our rather long exposure to "leftist" thought, our inability to clearly recognize the peculiarities involved in the development of socialism in our country, our failure to adequately estimate the arduousness involved in the building of a socialist society, our rushing to effect completion, and the illusion that socialist revolution and construction could be carried out in a day, the end result has been "more haste, less speed." In the first 2 years after the smashing of the "gang of four," due to our inadequate knowledge of the harm caused by "leftist" thought, some unrealistic slogans were once again put forward. When we had been liberated from the fetters of "leftist" thought, some people, on seeing that a long, hard period still lay ahead if we were to completely realize the ideals of socialism and communism, were entirely at a loss as to what to look for in life. Some individuals even became victims of self-neglect as their sacred and glorious ideals were shaken. In order to arouse people's ardor, in addition to devoting major efforts to propagating the fact that the Chinese socialist system is entirely in keeping with objective laws, we should seek truth from facts and propagate the arduousness involved in building socialism, so that our comrades will at the same time be brimming with confidence and be down to earth in their approach as they tackle the difficulties that lie ahead on the path to progress.

Although the theory of scientific socialism was founded by Marx and Engels over 130 years ago and over 60 years have elapsed since this theory was put into practice, in the endless flow of human history, when all is said and done, this is only a batting of an eyelid. It is still in the stage of continuous development and perfection. Engels said: "Since socialism became a science, it has demanded that people treat it as such. That is to say, it has demanded that people study it."¹³ Therefore, the theory of scientific socialism must never be treated as a dogma. Whether or not we have adhered to the socialist road is definitely not a matter of whether or not we have rigidly stuck to the writings and individual conclusions of the founders of Marxism, but more a matter of whether or not we have remained faithful to the essential spirit of scientific socialism. In particular, we must see whether the universal truths revealed by them can be integrated with concrete practice in China and whether the series of questions on the socialism brought about within the specific economic environment of and under the specific historical conditions in China can be answered. Comrade Mao Zedong once warned us that, when analyzing contradictions, it is hardly adequate to merely understand their universality. "Of special importance is that fact that we must pay attention to their particular characteristics, and this forms the basis of our recognition of things."¹⁴

Only an investigation which pays attention to the peculiarities of socialism in China and a reply which seeks to convince people by applying the basic principles of Marxism and Mao Zedong thought to its particular characteristics can encourage and impel the popular masses to struggle on indefatigably. This is an extremely glorious military-like task for the theorist.

Comrade Deng Xiaoping once said in a speech he made at the beginning of the 1980's that we are still quite definitely lacking in experience in how to practice socialism, and that it is only now that we have conscientiously found a relatively better path. Since the 3d plenary session of the 11th Central Committee, we have already done much work in this respect. As long as we continue to adopt a scientific attitude in our study of and research into Marxist truths, remain faithful to the essential spirit of scientific socialism, thoroughly eradicate the influence of leftist thought while at the same time paying attention to the prevention of disturbances from the right, we will definitely be able to progress in a socialist direction. A highly democratic, highly civilized, powerful, modern socialist country will definitely emerge in the Eastern world.

FOOTNOTES

1. Engels: "Karl Marx--Critique of Political Economics," "Collected Works of Marx and Engels," Vol 2, p 122.
2. Ibid.
3. Lenin: "On the Revolution in Our Country," "Selected Works of Lenin," Vol 4, p 690.
4. Marx: "Draft of Reply to V.I. Zasulich--Three Drafts," "Collected Works of Marx and Engels," Vol 19, pp 450-451.
5. Marx: "Das Kapital," Vol 1, People's Publishing House, 1975 Edition, p 265.
6. Engels: "The Principle of Communism," "Selected Works of Marx and Engels," Vol 1, p 218.
7. Marx: "Das Kapital," Vol 1, p 204.
8. Marx: "Das Kapital," Vol 1, p 358.
9. Lenin: "On 'Leftist' Infantility and the Nature of the Petite Bourgeoisie," "Selected Works of Lenin," Vol III, pp 550-551.
10. Mao Zedong: "The Chinese Revolution and the Chinese Communist Party," "Selected Works of Mao Zedong," Vol II, People's Publishing House, 1966 Horizontal Edition, pp 589, 591.
11. Ibid.

12. Lenin: "The Third International and Its Position in History," "Collected Works of Lenin," Vol XXIX, p 277.
13. Engels: "Preface to 'The German Peasant War'," "Selected Works of Marx and Engels," Vol II, p 301.
14. Mao Zedong: "On Contradiction," "Selected Works of Mao Zedong," Vol I, p 283.

CSO: 4006/435

ENERGY

BUILDING OF NEW RURAL ENERGY SOURCES DISCUSSED

Use of Methane Gas, Solar Energy

Beijing BEIJING RIBAO in Chinese 10 Jul 81 p 1

[Article by Ren Zhixi [0117 4460 3679]]

[Text] "To light a lamp without using oil; to cook without worry; to bathe without leaving home; and to see a play without leaving one's kang." This is a scene from the life of commune members in the Liiuminying Production Brigade of Changziying Commune in Daxing Commune. Since last year this production brigade has vigorously developed new energy sources, and virtually every household has built a methane pit and a solar energy bath. In a village of 162 households, there are 155 methane pits, and 152 solar energy baths.

Last year this production brigade's per unit grain yields reached 1,400 jin per mu and annual income amounted to 720,000 yuan, each person averaging 2,670 jin of grain. Production and living standards rose, but because of the increase in the rice growing area, there were no stalks and stems to be used for fuel. Every family depended on the hauling of sawdust and not fully burned coal ashes to cook their food and provide heat. A family of five would spend an average of somewhat more than 70 yuan per year in a situation that was truly one of "no worry about what to put into the wok, but worry about what to put under the wok." Last year, the brigade's party branch summarized the lessons of experience in failure from the building of methane pits, and both sent people to advanced brigades to study techniques and used classical methods of leading the way, first building a methane pit connected to the three toilets and pig pens of three production team cadres. As a result, each family used only three matches a day to prepare three meals, saving expenses, saving time, and having sanitation. During electric power outages, they could light lamps. Next, more than 100 households in the village asked for construction of methane pits. The brigade's party branch had the brigade supply bricks and cement, the individual commune members themselves providing labor in arousal of the masses to build methane pits. As a result, by this spring the entire brigade has been methanized. Last spring's use of the first 36 methane pits to be built has shown that by using methane gas for cooking, it is possible to prepare three meals a day 6 months of the year, two meals 2 months of the year, and one meal 4 months of the year. The masses no longer "worry about what to put under the wok." The waste from the methane pits makes fine fertilizer. Used to

fertilize wheat and rice, it causes resistance to lodging, resistance to disease, and filling out of the grain. Last year they used methane pit waste to water cabbage with phenomenal results.

Formerly when a commune member wanted to take a bath, he would have to travel at least 15 li and as far as 50 li, missing work and wasting money. It was a nuisance as well, so some commune members never took a bath. In 1977, the production brigade built a public bath, which was open twice a month and which consumed 400 jin of coal each month, but commune members still felt it was inconvenient to use. Last year the County Science Committee developed a solar energy box-type hot water device of simple construction that could be used in a family solar energy bath. The County Science Committee set up a pilot project in the Liunying Production Brigade, which the production team's party branch enthusiastically supported. Party branch secretary, Zhang Zhanlin [1728 0594 2551] took the lead in building a solar energy bathroom in his home, where results of experiments showed that water reached a maximum temperature of about 65°C and remained at about 40°C at 11 o'clock at night, so that a family returning home from work could take a bath, sometimes bathing twice a day. Commune members were happy as soon as they saw it and clamored to have solar energy bathrooms built. Under the organization of the brigade's party branch, the brigade provided materials, bricks and mortar, and the commune members themselves did the work, very quickly constructing solar energy bathrooms in 152 commune member households. During 6 months of the year, commune members can now "take a bath without leaving home."

As a result of the popularization of methane pits and solar energy bathrooms, individual health throughout the brigade is good; environmental sanitation is good; people can relax in their free time; and expenditures have been economized as well. Everyone has learned from experience about the superiority of the collective economy, realize the tremendous power of science and technology, and have greater zeal for work on the four modernizations.

'BEIJING RIBAO' Comment

Beijing BEIJING RIBAO in Chinese 10 Jul 81 p 1

[Text] The very good experiences of Liunying Production Brigade in using methane gas and solar energy marks the direction of development for use of new energy resources by suburban rural villages.

For the past several years, new growth has occurred in endeavors by suburban rural villages to use new energy sources, and many production brigades now use methane gas to cook and for illumination, and methane is even used to generate electricity. In Daxing County, numerous communes, brigades, and units have built solar powered baths, and some also use solar energy to propagate seedlings, to grow vegetables, and to dry grain, opening new paths for multiple uses of solar energy. Additionally, some production brigades and units have begun to use geothermal energy in building baths, and using windpower to generate electricity. These facts demonstrate that the field is vast for tapping new energy sources, and use of new energy sources holds vast prospects. Nevertheless, use of new energy sources in suburban rural villages is very unbalanced. In some places, because leadership cadres have given insufficient serious attention, no action has yet been taken.

In some other places, because of a lack of technology and management measures, projects have been abandoned in mid-course. Some people even think that to make methane is to work "in vain," and that it is "spending money to go looking for trouble." They do not believe in science, supposing that "there are no lamps that save oil and no stoves that save on firewood, methane gas and solar energy not being able to solve any large problems."

For this reason, vigorous pursuit of methane gas and solar energy endeavors will require strengthening of leadership and straightening out of perceptions so that people realize that the tapping of new energy sources is to use science and technology to effect a transformation in the living habits of several thousand years in rural villages. It both saves energy for the state and is a powerful measure for hastening the pace of the four modernizations, and is a major way, as well, to develop agricultural production and improve the life of the masses for the benefit of the state, the collective, and individuals. Everyone should be concerned and should make efforts. In order to do a good job in this undertaking, it is also necessary to take effective action to arouse the masses. In this regard, Liuninying Production Brigade provides very good experiences. First they learned to do what they had been unable to do, learning from experts and advanced units to get a grasp of the technology. Second they used classic methods of leading the way so that everyone could see results with his own eyes to make the masses more receptive. We hope that communes and brigades everywhere will study the fine experiences of Liuninying Production Brigade, and study their scientific attitude and methods so that there will be more new energy villages in the suburbs, and that standards will rise somewhat so that development of methane gas and solar energy undertakings will flourish more, the better to create prosperity for the people.

Sichuan's Small Methane Power Stations

Beijing RENMIN RIBAO in Chinese 12 Jul 81 p 1

[Text] Xinhuashe Editor's Note: As production develops and the standard of living of the peasants rises, rural villages will need more and more electricity, but at the moment, the rural villages of the country are very short on electricity. Therefore, in places where raw materials for fermentation are sufficient, the building of small methane gas electric power generating stations is one way for rural villages to tap a new source of electric power for which the prospects are extraordinarily vast. At the present time, numerous rural villages in Sichuan Province are in the process of constructing small methane gas electric power stations and are urgently in need of large amounts of methane gas power generating equipment. Are not some of our machine industry units shouting that they "have nothing to eat"? If they can open a road to supply these rural villages with methane gas power generating equipment, they will find a great market for it. They will find rice to put into their pots and have something to eat.

Rural villages in Sichuan Province have blazed a new trail in the use of methane gas to generate electric power by building small methane gas electric power

generating stations. As of the end of last year, 488 small methane gas electric power generating stations with an installed capacity totaling 2,629 kilowatts had been built throughout the province.

Rural villages in Sichuan generally lack electricity. During the past several years, less than 10 percent of all production teams had electric power. Since 1974 numerous communes and production brigades in rural villages have scurried to make methane gas, providing an inexpensive fuel for the generation of electricity. Then, small methane gas electric power generating stations sprang up. Most of these small methane gas electric power generating stations use a mixture of methane gas and diesel oil as fuel, but some use methane gas exclusively as fuel.

Small methane gas electric power generating stations have tapped new electric power sources for rural villages, have promoted industrial and sideline industry production, and have improved the livelihood of the people. Last year No 1 Production Team of Guangrong Production Brigade in Chengdu's southern suburbs built a small methane gas electric power generating station. In addition to providing enough electricity for the production team itself, it supplied power to two nearby production teams, saving 12,960 kilowatt hours of electric power annually for the state. Shimiao Commune in Ba County, located at 1,060 meters above sea level in the high mountains, has no water power resources, and construction of high voltage power lines is also difficult there. During the past 2 years, individual production teams have built 13 small methane gas electric power generating stations with an installed capacity of 170 kilowatts. Last year, this commune generated a total of 10,500 kilowatt hours of electricity, and 40 percent of peasant households have electric lights.

The experiences in Sichuan Province demonstrate that rural village use of low cost, easily developed methane gas energy for the building of small, scattered methane gas electric power generating stations that the masses can operate possesses advantages in short electric power lines, small loss of power in transmission, quick results, savings in petroleum resources, and small investment, with great acceptance by the peasants. Right now, enthusiasm is running high in rural communes and brigades for the operation of small methane gas electric power generating stations, and many are pooling their funds to accelerate construction. Numerous prefectures have formulated development plans. In many distilleries, livestock farms, and truck farms that have copious raw materials for fermentation to make natural gas, the zeal for operating small methane gas electric power generating plants is greater.

In the construction of small methane gas electric power generating plants in rural Sichuan, some problems still exist in equipping electric power generating facilities, which research and production units concerned are actively studying for early solutions in a determined effort to provide rural villages, with all possible speed, complete electric power generating facilities of fine quality that can be operated economically and are completely fueled by methane gas to meet the needs of rural villages.

ENERGY

USES OF SOLAR ENERGY, BIOGAS DISCUSSED

Development in Beijing Suburbs

Beijing GUANGMING RIBAO in Chinese 21 Jul 81 p 2

[Text] Editor's Note: In recent years, some places and units have acted in accordance with realities, adapting general methods to specific situations to make a start in research and application of solar energy, achieving remarkable results. However, other individual places and units have persisted in seeking the highest, the most perfect, and the best in solar energy research, frequently only to have to quit in mid course in the face of restrictive conditions. The series of manuscripts published here show that inasmuch as China is still in the stage of research and experimentation on new energy sources, in the development and application of solar energy emphasis must go to selection of those projects for which costs are low, results rapid, the technology simple and readily workable, and in which current production and livelihood are intimately related. Only such results of scientific research will be accepted by the masses.

The correspondents arrived in Daxing County, a southern suburb of the capital, in mid-summer. Upon arrival at the county seat, we were attracted at once to the different kinds of solar energy hot water devices that various units and households had installed in their courtyards. Some of these hot water devices were of a stationery panel type, while others were automatically tracking; some were large, and some were small. The largest had a light collecting area amounting to more than 150 square meters; the smallest was only 1 meter square. They were set facing the scorching sun, and their reflection was blinding.

The County Science Committee deputy director Zhang Qingxing [1728 1987 5281], and engineer Xie Juoguang [6200 0948 0342] warmly and excitedly briefed us. Daxing County's experimentation and promotion of multiple applications of solar energy technology began in 1976, developing within the short space of several years from the county seat to the rural villages, and from experimental use of a boxlike solar stove for cooking to the use of solar energy to treat illnesses, to dry grain, to kill insects, and most particularly, use of solar energy to heat water for baths has been most widespread. Now, the multiple use of solar energy has not

only blossomed in the city, but numerous communes and brigades in rural areas have also planted the seeds. The collection area for solar energy hot water devices in the county runs to 6,700 square meters, of which more than 600 are home hot water devices with individual light collecting areas of from 1 to 2 square meters. Between May and October of each year, solar energy hot water baths are taken an average of 15,500 times daily throughout the county. In this way, the county saves more than 12 tons of coal daily.

Promotion of a comprehensive technology for use of solar energy in Daxing County has not been all smooth sailing by any means. At the beginning, many people considered it like lighting a candle for a blind person--a sheer waste. They said, "If this technology is not popular in Beijing Municipality, how will the rustic cadres and the rubes in the countryside be able to put it to use?" However, the leaders and scientists and technicians of the County Science Committee were undaunted. They patiently propagandized the leaders concerned and the masses, helping one unit after another to design and install facilities for the use of solar energy, using facts to explain their superiority. Up until 1977, there were only two 4 square meter bath houses for the more than 300 workers in the county transportation company, and since the boilers consumed much coal that was difficult to come by, these baths could open only once or twice each week. Each time they opened, only half the employees could take a bath, and they had to queue up to do it. Each day after finishing their shifts, the sweat-covered and grimy drivers, mechanics, and loading and unloading workers had no choice but to splash a little water over their bodies in the dormitory. The summer of 1977, comrades from the County Science Committee helped this company construct a light collecting area of 80 square meters, and an 8 ton solar energy hot water device using sunshine to heat water. Thereafter, from spring to fall every year, not only could all the employees and families of employees in the company take a hot bath daily, but they also annually saved more than 100 tons of coal. The comrades of the County Science Committee also helped more than 50 farm machine plant, nitrogenous fertilizer plant, and manure depository units build installations to make use of solar energy.

Having paved the way in the county seat, the confidence of comrades from the County Science Committee about experimental spread of multiple use technology for solar energy increased. They made up their minds to promote it in rural communes and brigades, letting solar energy warm thousands upon thousands of households. Following numerous inquiries of commune members and repeated experiments, they designed and fabricated a home use solar energy hot water device with a light collecting area of only 1 square meter, and they selected the Liiuminying Production Brigade in Changziying Commune to be the test site.

"As soon as test site work got underway, we ran into difficulties," said Zhang Qingxing, telling us the following story. When the County Science Committee notified the Liiuminying Production Brigade to haul away the first group of family hot water devices, the cadres and masses in the production brigade were happy. The following day, the secretary of the party branch committee personally went to the county seat early in the morning to accept the goods. However, when he saw that the so-called family solar hot water device was only a metal box 1 meter square, he could not believe that it would be able to satisfy a family's needs for hot water for bathing. He felt so disappointed that he even refused a cup of tea and wanted to return to his brigade with an empty vehicle. Laughingly, Zhang Qingxing

restrained him saying, "Let's make a gentleman's agreement. Just you haul these few score hot water devices back to the brigade, and I'll send someone over right away to install one of them before noon. If you are unable to take a hot bath by 3 o'clock this afternoon, I'll haul the hot water devices back and pay you for all your losses." When the commune members finished work at noon that day, they all surrounded the hot water devices, but no one asked for any of them. At 3 o'clock in the afternoon, they crowded into the secretary's house to see just what would happen. When the faucet was opened, a touch showed them that the water was scalding. Then the several score hot water devices that no one had wanted, were all taken.

When we arrived at Liuninying Production Brigade, we saw that every one of the more than 150 households in the brigade had installed a solar energy hot water device. When commune members came home from work, they would take a comfortable bath first. Happily, they said to the correspondents, "We didn't spend much money for this apparatus (each one costs 50 yuan, but commune members paid only 20 yuan, the remainder being subsidized by the brigade), but it really solved a big problem for us." Now, these hot water devices have struck root in one commune and brigade after another in Daxing County.

In order that solar energy will be widely applied to agricultural production, with the cooperation of units and departments concerned, the Daxing County Science Committee has designed and fabricated for rural communes and production brigades solar energy devices having multiple uses. One such has been a piece of equipment that can dry grain, or be used in a greenhouse to grow vegetables or propagate seedlings, and can be used to heat bath water, which was put up in Ercunsan Brigade of Qingyundian Commune in June, 1979. Useable throughout the year, during last year's wheat harvest alone, it dried 280,000 jin of wheat. Now, the Daxing County Science Committee's comrades are striving to move ahead, determined to make new achievements in the multiple uses of solar energy.

Use With Flue-Cured Tobacco

Beijing GUANGMING RIBAO inChinese 21 Jul 81 p 2

[Article by HENAN RIBAO Correspondent Li Genlin [2621 2704 2651]]

[Text] Following 4 years of cooperative efforts on the part of the Changge County Tobacco Bureau in Henan Province, the Solar Energy Unit of the Institute of Dynamics of the Chinese Academy of Sciences, and the Tobacco Machine Unit of the Farm Machine Unit of the Farm Machine Institute of the Henan Provincial Machinery Bureau, "solar energy tobacco curing equipment" has been successfully developed at Dongzhuang in Changge County. This successful research has blazed a trail in the reform of flue-cured tobacco technology for savings in energy, lowering of production costs, and in improving quality of flue-cured tobacco.

The Dongzhuang solar energy tobacco curing equipment uses solar energy as a supplementary energy source. Atop massed ovens, solar energy heat concentrators and an associated hot air cycling system have been erected. The concentrators are of two types. One is a flat heat concentrator that uses glass as its transparent material, and the other is an arched heat concentrator that uses plastic

sheeting as its transparent material. The heat efficiency rate of these two kinds of heat concentrators is 49.6 and 45.9 percent respectively as compared with a between 25 and 30 percent saving in coal for the massed ovens, and as compared with a 40 to 50 percent saving in coal for the native curing sheds. Quality of flue-cured tobacco is also better than that of either the native curing sheds or the massed oven building. This February the units concerned made an appraisal of this research achievement, concluding that the heat efficiency rate and coal conservation index of both the glass and plastic sheeting solar energy tobacco curing equipment's heat concentrators attained better standards than similar equipment used elsewhere in the county. The structure of the plastic sheeting heat concentrator was particularly simple, its costs of construction was low, and it could be easily promoted in other places.

In order to improve the solar energy tobacco curing equipment's utilization rate and put a single oven to multiple uses, the Changge County Tobacco Bureau launched further experimental research in multiple use with the vigorous support of provincial, prefecture, and county science committees, achieving heartening success in the hot air generating room for the solar energy tobacco curing equipment, they built an edible fungus cultivation room atop which was a glass hothouse. In the hot air generating room was a seven force axial flow wind machine able to supply hot air both to the flue-cured tobacco drying room and to the edible fungus culturing room. After the season for curing tobacco was over, the flue-cured tobacco drying room could be used to dry grain and other agricultural byproducts, and could also be used for drying Chinese vermicelli. This equipment could both raise and lower temperatures, and except for the winter season and the tobacco curing season, when it was necessary to have a fire, coal was otherwise not burned. During May, temperatures may drop to 12°C. Last year, the equipment was used to culture pinggu [1627 5466] [a kind of mushroom] for a harvest of 2,400 jin, the largest pinggu weighing 7.6 jin, and each jin of cotton husks producing 8 liang of pinggu. This spring, more than 10,000 jin of vermicelli were dried, and a harvest of more than 100 jin of garlic was taken in. Currently, hedgehog hydnum [Hydnum erinaceus], pinggu, white mushrooms, and vermicelli are being produced here.

Solar Energy, Biogas in Combination

Beijing GUANGMING RIBAO in Chinese 21 Jul 81 p 2

[Text] With the help of the energy laboratory of the Chinese Academy of Agricultural Engineering Design, the Mianyang County Science Committee in Hubei Province has achieved success with experiments in hot house culture using a combination of solar energy and biogas.

Mianyang County is located on the Han River Plain. Its climate is mild and rainfall copious, making it suitable for continuous cropping of early and late rice. Here seedling propagation for the early rice crop is done in open fields, and frequently spring season cold waves cause fairly serious seedling rot. In view of this situation, this county switched to seedling culture in hothouses heated by stoves. This was an effective method, but too many stalks and stems were burned, more than 4 jin of stalks and stems being required to propagate seedlings from 1 jin of rice seeds, which made it economically not worthwhile. In 1979, with the help of relevant units, the Mianyang County Science Committee began experiments using solar energy and biogas to grow seedlings.

Solar energy is an inexhaustible resource, its shortcoming being that when there are 2 or more days of overcast and rainy weather, the accumulated energy is used up, and a supplementary source of energy is needed. In Mianyang County, the best supplemental energy source is biogas. Finding a way in this resource of the county, the County Science Committee constructed a 100 square meter glass hothouse, a 100 square meter simple hot water concentrating pit, and a 90 cubic meter biogas pit. These facilities could mutually combine solar energy and biogas, using the advantages of one to make up for the disadvantages of the other.

Almost 3 years of experiments have shown that by using this method to propagate seedlings, early seedling growth is promoted and seedling survival is assured. It both saves conventional energy sources and permits diversification inside the hothouse. Using these facilities, 600 mu of early crop rice seedlings can be grown every year. Once the rice seedling propagation season is over, edible fungi such as pinggu and black wood fungus can be cultured, and some vegetables may be grown as well. The hot water may also be used for bathing or washing clothes. Looked at from an economic standpoint, the entire investment may be recovered within 4 years, making it suitable for promotion in rural communes and brigades.

9432

CSO: 4006/430

ENERGY

BRIEFS

SOYBEAN MILK FROM SOLAR POWER--The Jiaonan County Fermentation Plant in Shandong Province with only 82 employees has successfully developed use of solar energy soybean milk manufacturing technology, thereby greatly increasing output of soybean milk. The process not only saves energy, but also cuts down on environmental pollution and improves sanitary conditions. Following appraisal by relevant units, this process is considered to have broad prospects for future development in the fermentation industry. This plant's soybean milk production technology had formerly been antiquated. It depended entirely on the use of several hundred large vats for open air fermentation to produce soybean milk. Annual output of soybean milk was 120,000 jin, far from enough to satisfy the needs of the widespread masses. Last year they studied the experiences of a fraternal unit in the use of solar energy, themselves then designing and building a set of flat solar energy heat concentrator equipment with a light collecting area of 238.7 square meters for use in producing soybean milk. This January experimental batch production began, and after a 3 month fermentation cycle, 225,000 jin of soybean milk has been produced. Chemical testing has shown that the first batch of soybean milk meets promulgated standards. [Text] [Beijing GUANGMING RIBAO in Chinese 21 Jul 81 p 2] 9432

ANHUI COAL MINES--Hefei, 3 Aug (XINHUA)--Seven pairs of large and medium-sized coal shafts, with a total annual capacity of 15 million tons, are now under construction in Anhui Province, according to the Huainan and Huaibei coal mining administrations. Coal washing plants, power plants, railways and public utilities for the mining areas are also being built, the administrations said. The Liuqiao coal mine, with an annual capacity of 600,000 tons, opened in May in Suixi County near Huaibei City. The Luling coal dressing plant, with an annual capacity of 1.8 million tons, opened in July in Suxian County. Construction of the Huainan and Huaibei coal fields, with verified reserves of more than 22,000 million tons, is one of China's key construction projects. [OW031433 Beijing XINHUA in English 0721 GMT 3 Aug 81]

CSO: 4020/233

INDUSTRY

STEPS FOR RAPID DEVELOPMENT OF CEMENT INDUSTRY OUTLINED

Beijing SHUINI [CEMENT] in Chinese No 6 10 Jun 81 p 2-5

[Article by Ding Hong [0002 7703], chief of the Bureau of Cement of the Ministry of Building Materials: "Opinions on Hastening the Development of Our Nation's Cement Industry"]

[Text] Recently, the leading comrades on the State Council issued demands for the development of our nation's cement industry. They can be summarized in three points: 1. The cement industry must be oriented toward the 1 billion people, especially the 800 million farmers. 2. The development of building materials must follow the road of concrete. 3. The development of the cement industry must be hastened. Therefore, how to hasten the development of the cement industry on the presently available foundation is an important question that should be conscientiously studied at present. Now let me talk about my opinions regarding this question.

I. Present Situation of the Cement Industry

For 31 years, as the national economy developed, our nation's cement industry established a definite foundation. The production of cement increased from 680,000 tons in 1979 to 79.86 million tons at the end of 1980. Distribution has improved greatly. Of the 29 provinces, cities, and autonomous regions, all except Xizang and Ningxia have large and medium-size cement factories. Small cement factories are scattered throughout the nation. A relatively complete technical team possessing definite standards in geological survey, scientific research, design, education, machinery manufacturing, mine construction, building and installation, and production management has grown up. During the mid-1950's, the technical standards of our nation's cement industry were no lower than those of the Soviet Union. The technological and economic indicators of the wet-method rotary kiln and of the liboer [phonetic] kiln surpassed the levels of the same types of kilns in the Soviet Union. In 1956 we began to study the dry-method rotary air preheating kiln, along with other nations of the world, and we were not late in developing new technology and new techniques. But later, because of the influence of leftist mistakes, and especially during the 10 years of upheaval, the foundation of the cement industry was damaged and progress slowed. At present, the level of equipment and technology of our nation's cement industry lags far behind the advanced nations of the world. The present situation in the cement industry has created many hindrances to the rapid development of the cement industry. Generally speaking, the foundation and strength are weak, the technological level is low, the equipment is backward, management is backward, the product structure is not rational, and the economic results are not good. To hasten the development of the cement industry, we must exert great efforts to solve these problems.

II. Small Cement Industries Must Develop Steadily During Readjustment

The small cement industry is an important force that cannot be neglected in the present cement industry. In 1980, the products of small cement plants constituted 68 percent of the total cement yield of the entire nation. They served greatly to alleviate the conflict between supply and demand for cement, especially in its orientation toward the farm villages to solve the needs of the 800 million farmers. But because most small cement factories have outdated equipment, their techniques are not complete. Therefore their technological strength is weak, the quality of their products is not sufficiently stable, and the cost and sales price are high. Therefore, this part of the enterprise must be readjusted, reorganized, improved, and rebuilt so that it will gradually develop into a superior quality, economical operation.

During the period of readjustment of the national economy, small cement manufacturing industries must solve two problems: One is to improve the quality of their products. Their products must meet the standards for quality established by the state for products of large and medium enterprises. Practice proves this can be done. At present, a fairly large portion of the enterprise has already achieved this goal. Foreign experience also proves that as long as techniques are complete and management is scientific, No 400 and No 500 cement can be produced in vertical kilns. The second is to reduce the cost of the products. Last year, we held three learning classes in economic accounting and cost management in order to help small factories learn economic accounting and improve operations, and we believe that after such efforts, the costs of small cement factories can be reduced.

In line with the spirit of readjustment of the national economy, no new small cement factories should be built in the future, except in a few faraway border regions. Presently existing enterprises should grasp technological reform tightly in the following aspects:

1. Ordinary vertical kilns should gradually be rebuilt into mechanized vertical kilns in order to increase production, improve quality, and lower energy consumption.
2. Presently available mechanized vertical kilns should be technically equipped as a complete set, and equal treatment of raw materials, semifinished products, and finished products should be strengthened to assure the need for steady production.
3. Utilization of surplus heat of rotary kilns over 2.4 meters in diameter that have already entered into production should be solved as a key measure to reduce heat loss in firing chamotte. Measures can be suited to local circumstances to utilize surplus heat for power generation for the rotary air preheater and vertical cylinder preheater, or to utilize surplus heat for drying. Dry-method hollow kilns of less than 2.4 meters in diameter consume a lot of energy, their technical and economic indicators are poor, and their development in the future should be limited.

Doing the work of rebuilding and improving small cement plants is a major way to increase the production of cement in the near future. The potential for this is very great. We must emphasize it and take forceful measures. First, we must grasp well the backbone enterprises that produce over 40,000 tons annually, so that small cement manufacturing enterprises can healthily develop on the basis of improving quality and improving their economic results.

III. Presently Available Large and Medium-Size Enterprises Are Important Foundations for Hastening the Development of the Cement Industry

The nation's 49 large and medium-size cement manufacturing enterprises are a very important backbone force of the cement industry. They are an important foundation for the future development of the cement industry. We must stand on this foundation before we can change the backward situation of the cement industry relatively quickly and with more conservative investment.

The distribution of the present cement industry is basically rational. The main problem is that the quantity of products of the large and medium-size cement plants is insufficient. Newly built enterprises cannot easily produce results within a short period for various reasons. Utilizing old plants for expansion and rebuilding will produce quicker results than building new plants.

The specific way to expand and rebuild old plants is as follows:

1. Enterprises with suitable conditions should be selected for enlargement of their facilities and expansion in the scale of their plants. Large facilities should be utilized. The investment per unit of product is lower than the investment in medium-size plants. The building period is shorter when compared to building several medium-size plants of an equivalent total scale. Therefore, new types of dry-method kilns can be expanded to a daily production capacity of 4,000 tons, 6,000 tons and even 8,000 tons at such cement plants as the Dalian, Huaxin, Zhongguo, and Jiangnan cement plants, which are old plants along rivers, near the seacoast, with good resources, and where transportation by sea and land is convenient; thus their production can be expanded from several hundred thousand tons at present to 2 or 3 million tons. To hasten the rate of expansion of old plants, key facilities of single unit machinery [whose development] cannot be solved within a short period domestically should be imported so that over a period of 5 years, through expansion, there can be increased production of about 10 million tons of cement.

2. Rebuilding of cement factories using the wet method should be grasped tightly. Sixty percent of our nation's large and medium-size enterprises use the wet method of production. The efficiency of the single unit machinery is low, energy consumption is high, and urgent reforms are needed. But because wet-method kilns are mostly small kilns with a diameter of less than 3.5 meters, changing the wet-method kilns to dry-method production still requires further study because, first, there are few usable parts, second, objective conditions do not allow discontinuation of production for rebuilding, and third, the technological and economic feasibility [of the changeover] requires further study. Therefore, wet-method plants should not hasten to rebuild facilities at present, but they should be rebuilt according to plan: for example, new dry-method production lines can be built alongside the original wet-method production lines, and for a certain period the new and old facilities should be allowed to coexist and the dry and wet production methods can be used together. We have proposed this method by starting out from the actual situation in our nation. Therefore it is more practical and effective. Experimental work in changing wet-method production should still be actively carried out, and the technological and economic results of rebuilding obtained through experiments should be evaluated on an overall basis so as to provide experience for future efforts to "change from the wet to the dry" method.

3. During the period of readjustment, forces should be organized to explore on an overall basis the conditions for rebuilding and expanding the old plants. On this basis, study the feasibility of plans to rebuild and expand enterprises that have suitable conditions, and propose overall and definite plans to rebuild or expand the plants so as to create conditions for a great development of the cement industry after readjustment.

Digging out the potential of old plants is an effective way to increase the production of cement within the near future. At present, we must grasp in a key way the following three aspects of work:

1. Enterprises which have not yet reached their designed capacity must quickly create conditions to reach that designed capacity. In general, the 49 large and medium-size enterprises are operating over capacity, but there are 10 plants that have not reached their designed capacity. The reason is that management is poor, there are a great number of loose ends left by capital construction, and, after entering into production, the enterprises cannot produce normally, and external conditions such as lack of coal, electricity, water and dregs and shipping difficulties mean that production needs cannot be assured. These 10 plants can increase their production by 1.05 million tons of cement after they reach their designed capacity.

2. Technical measures that have proven to be effective should be popularized in order to improve the efficiency of the facilities and conserve energy consumption. New types of fireproof lining materials should be used to extend the operating time of the cement kiln and improve operating efficiency, and heat-tolerant steel chains should be popularized to improve the heat-utilization efficiency of the cement kiln. Using these two measures can increase the production of cement by 2 to 3 percent on the present basis; this would be equivalent to an increase of 700,000 tons of cement each year. Ball grinders should be of wear-resistant steel, at this would conserve 10 kilowatt-hours of electricity for each ton of cement produced at present. Calculated at an annual production rate of 80 million tons of cement, this would mean a saving of 800 million kilowatt-hours of electricity.

Reducing the burning temperature of chamotte is a promising measure for increasing yields and conserving energy. At present, scientific and research departments have already obtained welcome results from their experiments. A reduction of 100°C to 150°C in temperature in the burning of chamotte can produce an increase of about 10 percent in yield and conserve 8 percent of the fuel, but further in-depth research into production techniques and into the properties of the products is still needed. After evaluation, this can be gradually popularized among enterprises with suitable conditions.

3. Deficiencies should be corrected in order to improve the comprehensive productive capacity. During recent years, four large and medium-size enterprises expanded one production line, but because a whole procedure was lacking, a comprehensive productive capability was not formed. If the deficiencies can be corrected, the productive capacity of cement production can be increased by 500,000 tons.

After implementation of the measures to dig out the potential in old factories, an increase of about 2.2 million tons of cement a year can be realized.

IV. Newly Built Plants Should Engage Mainly in Dry-Method Production

After many years, the debate between the wet and dry methods have now been decided, and the dry method is the direction of future development. The problem is that our dry-method facilities are still technologically incomplete, and they have not yet reached the point of popular use. Therefore, the most urgent task at present is to concentrate scientific and research and design efforts to come up with several dry-method facilities and plant designs that are technologically more complete for selection at the time the plants are constructed. Design work on a dry-method production line with a daily productive capacity of 2,000 tons has made great progress after several years of effort, but there are still more technical links that require further research and solution. It is suggested that the ministry establish a specialized internal agency to coordinate research, design, equipment manufacturing, and experiments for a production line with a daily capacity of 2,000 tons in order to realize completion of the experimental design work for the entire mainframe machinery and equipment set within a year. At the same time, fixed localities should be grasped tightly to build up the work in about 4 years, summarize experience, and rapidly popularize it. The external decomposition kilns with diameter of 3 x 48 meters, and the 4 x 60 meter diameter rotary air preheating kiln and vertical cylinder preheating kiln, which have already been built or are being built, must be perfected in order to create conditions for the utilization of the dry-method technique by newly built plants and rebuilt old plants of various scales.

The type of kiln for the newly built dry-method plants can be selected by suiting measures to local circumstances. The general direction is to increase production and conserve energy. But in regions where there is a shortage of electric power, the dry-method hollow kiln with a surplus heat generator can be used. The efficiency of electric power generation is not comparable to that at large powerplants, but given our nation's conditions, in which the price of coal is cheap, the price of electricity is expensive, and there is a shortage of electric power supply, efforts which can solve the source of electricity and can also produce economic gains are still rational for enterprises. The dry-method hollow kiln that uses surplus heat to generate electricity actually consumes about 1,050 kilocalories of heat per ton of chamotte, calculated on the basis of a need for 0.425 kilograms of coal to produce 1 kilowatt-hour of electricity, and deducting the amount of coal used for the generation of electricity, and deducting the amount of coal used for the generation of electricity. This is still a type of kiln that at present has a relatively low consumption of energy in our nation.

V. Establish Chamotte Production Bases; Disperse Cement-Grinding Plants; Supply Users With Unpackaged Cement

Large chamotte production bases should be established in regions where mineral resources are rich and transportation is convenient. Grinding stations should be established in large and medium-size cities and regions where there are no mineral resources and where the amount of cement used is relatively large. Consumers should be supplied with unpackaged cement. This is an important economic reform that has a direction for development. Its main benefits are as follows:

1. It solves the problem of supply and demand for cement in regions where limestone resources are not available. It changes the present situation of shipping limestone and cement over long distances to certain localities and reduces the burden of shipping.

2. Unpackaged supplies can conserve the use of massive quantities of paper for packaging, and a massive quantity of superior timber materials can be conserved. Calculated at an annual production of 120 million tons of cement, 3.6 million cubic meters of Korean pine and pinus bungeana would have to be used each year to produce the paper bags for packaging the cement. It can be seen that it is very necessary to supply unpackaged cement in China where timber resources are in short supply.

3. It benefits improvement of environmental pollution in large and medium-size cities.

4. It benefits the rebuilding and improvement of some small plants. Shipping a part of the chamotte to small plants and vertical kiln chamotte mixing and grinding plants to produce cement along the sides of transportation routes, or converting some small plants into grinding stations, will be beneficial to improving quality and reducing cost.

Under the present system, implementing this measure requires that the state arrange for investment in and construction of a group of large commercial chamotte bases. At the same time, corresponding and rational regulations must be established for the distribution of cement, the pricing of chamotte, and tax policies so that the chamotte bases, grinding stations, and localities will all benefit. The method is first to grasp a trial locality. For example, the state can invest in and build a chamotte production line at the Dalian Cement Plant in Tianjin; the locality can invest in the building of a grinding station (Tianjin does not have good limestone mines); the Dalian chamotte can be shipped by boat to Tianjin for grinding; and unpackaged cement can be supplied locally. After experience has been obtained, this method can be popularized.

VI. Readjust the Product Structure of the Cement Industry

At present, the structure of cement products has two relatively outstanding problems. One is the large proportion of medium-label quality cement and the scarce amount of high-label quality cement and low-label quality cement suitable for building mortar. The second is that the proportion of the products of large, medium, and small enterprises is not rational; the proportion of products of large and medium enterprises with good economic results is too small. These two problems should be readjusted during future development.

1. We should increase the proportion of high-label cement and special cement, and at the same time develop a portion of low-label building cement. Doing this will benefit the rational utilization of cement, achieve the goal of conserving the amount of cement used, reduce the burden on shipping, and conserve packaging materials. This will also create the necessary conditions for the development of high-label concrete to improve the standards of building structures and construction technology. We imagine that after readjustment, presently existing large and medium-size enterprises will for the most part provide high-quality cement above the 600

label to society; small enterprises will produce mainly No 400 and No 500 medium-quality cement; and in regions where there is industrial waste, and near large construction sites in cities, we can allow some small plants to produce building cement of No 250 and No 300 grades, which contain less chamotte. To do this readjustment work well, the following problems must be solved well.

(1) When the state arranges production plans for large and medium-size enterprises, it should consider the effects brought about by a change in the variety of products and appropriately reduce production goals. After the product structure is readjusted, utilization will be more rational, there will be more conservation, and the products therefore will be more beneficial to the state. Problems must be considered on an overall basis, and efforts should not simply be to pursue production goals.

(2) We must have a rational pricing policy and a tax policy so that the production enterprises and the consumers will both benefit from the economic gain to different degrees through readjustment of the product variety.

(3) The work of the design and construction departments must be strengthened in order to rationally utilize different varieties and labels of cement.

(4) We should do the work of propagandizing and popularizing the production of high-label concrete well.

2. We should select small plants with good conditions for expansion into large and medium-size enterprises, so as to increase the backbone elements of our nation's cement industry. At present, the quantity of products produced by the large and medium-size enterprises cannot satisfy the needs for construction of large industries. Increasing the proportion of the products of large and medium-size enterprises cannot passively limit the development of small cement-producing industries. The development of large and medium-size enterprises should be hastened, and some small plants should be expanded and rebuilt and upgraded to large or medium-size plants. Two years ago, there were projects to upgrade 22 small plants, but for various reasons most projects have been terminated or postponed. Some plants would have better conditions after implementation, and in the future this should be reconsidered. Presently existing small enterprises with good product quality and with a rational economy should be encouraged to develop. The necessary administrative measures should be taken to intervene in those plants that do not have productive conditions and that produce low-quality products for long periods. Some should be readjusted within a certain period of time, while those that really do not have the proper conditions can be converted to grinding stations. We can imagine that after a definite period of readjustment, the proportion of products of large and medium-size enterprises can be increased to about 50 percent.

VII. Strengthen Basic Work

Scientific research, education, design, equipment manufacturing, geological survey, specialized installation, mine construction, and production management teams must be rapidly strengthened. To hasten the development of the cement industry without a strong and forceful team of workers consisting of scientific research and design personnel is not possible. Faster and better development is possible only when the foundation is well established. The function of technical personnel must be fully

developed. In technical problems, technical personnel should have their duties, their authority, and their responsibilities so that they can fully develop their technical skills. We must strengthen the training of workers and elevate their cultural, scientific, and technical level. We must emphasize the development and construction of the resources of mines for cement, strengthen surveys of mines, and strengthen the design forces. We must improve the standards of equipment manufacturing. Equipment manufacturing is a key to whether or not development of the cement industry can be hastened and whether the technical level will be high or low. Without modernized equipment, it will not be possible to have modernized cement plants. To improve the standards of equipment manufacturing and the standards of complete sets of equipment in our nation as quickly as possible, besides developing our own nation's technology we should plan for the introduction of foreign, advanced, reliable, and suitable technology and necessary single machinery units into our nation.

VIII. Actively and Steadily Carry Out Reform of the Economic Management System

The present system in the cement industry hinders the development of productivity. Hastening the development of the cement industry requires a reform of the system. We must actively create conditions to establish a management system under which responsibility is both centralized and delegated to different levels. There must be a clear responsibility system. The present situation whereby there are people in management but there is nobody to take responsibility should be changed. The cement industry must be specialized; it must centralize the forces of scientific research, design, equipment manufacturing, and geology to form a company. Unnecessary centralization will not produce strength or high efficiency.

Now, the leading comrades of the Party Central Committee and the State Council care about and are paying attention to the development of the cement industry. This is a very favorable condition. As long as we conscientiously implement the line of the Third Plenum, as long as the direction is correct, as long as the measures are practical and useful, and as long as we do not just talk and issue written orders but concretely work, I believe that after a definite period of effort, our nation's cement industry will undergo a relatively great improvement in the relationship of supply and demand and in the situation of the industry. The gap between our level and the world's advanced level will greatly lessen. Let us take action together to promote the development of our nation's cement industry, and welcome new victories.

9296

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INDUSTRY

RURAL MARKET SURVEY RESULTS ON BICYCLES, SEWING MACHINES, WATCHES

Beijing ZHONGGUO CAIMAO BAO in Chinese 11 Jun 81 p 4

[Article: "How Many Bicycles, Sewing Machines and Wristwatches Are Needed in Rural Villages? Survey Shows That This Year an Average of 1 Out of Every 55 People Wants To Buy a Bicycle; an Average 1 Out of Every 16.5 Households Want to Buy a Sewing Machine, and an Average of 1 Out of Every 88 People Wants to Buy a Wristwatch"]

[Text] Recently the National Supply and Marketing Cooperative Administration's Planning Bureau had its contact points in rural markets in 26 provinces, municipalities, and autonomous regions survey peasant needs for bicycles, sewing machines, and wristwatches.

Statistics from 86 contact points on 1,258,000 households and 6,670,000 people showed that as of the end of 1980, there were 422,000 bicycles, or an average of 1 bicycle for every 14.6 people, and 184,000 sewing machines, or 1 sewing machine for every 6.9 households. In 1981, 114,465 bicycles will be needed, or an average of 1 bicycle per 54.9 people; and 78,077 sewing machines will be needed, for an average of 1 sewing machine for every 16.52 households. Extrapolating these figures, in 1981, rural villages nationwide will require 15.66 million bicycles, and 11.16 million sewing machines. By 1985, there will be 1 bicycle for every eight people in rural villages, and 1 sewing machine for every 2.5 households.

A look at the circumstances of the survey shows that since economic conditions differed from place to place, requirements for bicycles and sewing machines differed too. In places with good economic conditions, the number owned was large and the number required was large too. In plains areas and places with fairly good economic conditions, the number required also increased very rapidly. In places where the economy is not well developed or where consumption levels are low, the number currently owned is small and requirements are comparatively small. However, in terms of development, a greater potential exists for purchases in such places.

In the course of the survey, commune members had many complaints about the supply of bicycles and sewing machines. First was that the number supplied to rural villages was too few. In recent years rural purchasing power has risen rapidly; nevertheless, the proportion of supply to rural villages has steadily declined. In 1978, for example, bicycles supplied to rural villages accounted for 36.65 percent of total output. In 1979, this declined to 35.58 percent, and in 1980,

it declined further to 30.72 percent. Surveys done by the 86 contact points showed that in 1980 supply to rural villages of bicycles and sewing machines amounted to only 40 percent and 30 percent respectively of the number required. Second was the need for sturdiness, durability, and good quality. In 80 percent of the places surveyed, people wanted heavier bicycles, and they also wanted name brands.

According to statistics on 6.06 million people at the 86 contact points, as of the end of 1980, people owned 530,000 wristwatches, or an average of 1 watch per 11.4 people. The ownership pattern was very uneven, however. In the suburbs of large cities, virtually everyone had a wristwatch. In the suburbs of Beijing and Shanghai, for example, there was an average of 1 watch for every 1 plus people. In these places, the main purchases of the future will accompany increase in population. In places where incomes were relatively high, commune members had a relatively large number of watches, particularly young people. In places where incomes were not high, it was mostly cadres, employees and staff of enterprises, and teachers; few commune members had watches. In Jiuzhou District of Huangping County in Guizhou Province, for example, except in government organizations where personnel had almost 1 watch per person, among commune members, there was only a single wristwatch per every 500 people or so. At these 86 contact points, in 1981, 70,000 wristwatches will be needed for an average of 1 watch per 88.1 people. Extrapolation from this figure shows that in 1981, 8 million wristwatches will be needed in the rural villages of the country. By 1985, there will be an average of 1 wristwatch for every 9.4 people.

The tendency shows that future needs for wristwatches will be most in places where economic conditions are good. The peasants like Chinese made mechanical wristwatches, particularly those made in Shanghai of medium quality and selling for about 60 yuan. Furthermore, a certain ratio of women's watches is required. A survey done in Yukang County in Zhejiang Province shows that 30 percent of the watches people want to buy are of medium size and 10 percent are of small size.

9432

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FOREIGN TRADE

COOPERATIVE VENTURES USING FOREIGN CAPITAL ELABORATED

Guangzhou GUANGZHOU RIBAO in Chinese 12 Jul 81 p 1

[Article: "Remarkable Achievements in Foreign Economic Work of Guangzhou Financial and Trade System; Creates Large Amount of Foreign Exchange for the Country; Creates Conditions For Increased Employment"]

[Text] Since the last half of 1979, Guangzhou's finance and trade system has instituted "special policies and flexible measures" in its foreign economic work. By launching cooperative ventures, processing of goods brought into China from abroad, engaging in compensatory trade and barter trade, and such flexible and diversified measures, it has used foreign capital for the introduction of advanced technology. According to statistics, formal contracts have been signed and implemented for a total of 44 projects, of which 14 have to do with cooperative development of tourism, 15 have to do with repair and maintenance of goods, 4 concern introduction of advanced equipment for the development of production of foodstuffs, 4 concern importation of materials from abroad for processing, 6 involve technical exchange, and 1 involves export of labor. In total, they employ more than \$77 million of foreign funds, and have already created more than \$5.6 million in foreign exchange for the country and made employment for more than 1000 people.

The finance and trade system's use of foreign capital for the introduction of advanced technology has made heartening changes in the countenance of some enterprises. First tourist facilities began gradually to improve. Since 1979 the Orient Guesthouse has used more than 32 million Hong Kong dollars to make changes that have converted it into a first rate guesthouse meeting international standards while maintaining a Chinese atmosphere. It has been favorably commented upon by both Chinese and foreign guests. In addition to stepped up cooperation with the Hong Kong Xin Hecheng Company, Ltd. in preparing to construct the China (Guangzhou) Hotel, the municipal finance and trade system is also actively using foreign capital to improve Mineral Springs Villa, People's Mansions, the Guangzhou Guesthouse, and food and beverage service industries in order to meet the ever increasing needs of developing tourism.

Financial and trade departments have used foreign economic cooperation to operate goods maintenance and repair service centers, which has increased the city's technical forces for maintenance and repair of goods. Timepiece and eyeglass firms have benefitted and been strengthened. The Southeast Timepiece Shop and the

Zhongshan Fifth Road Department Store have worked with foreign traders to operate timepiece maintenance and repair services, thereby raising standards in electric quartz crystal watch repair. The Youguang Eyeglasses Shop on Renmin Nanlu has begun to run a computerized eye examination and lens prescription service, and the Jingyi Eyeglasses Shop on Zhongshan Fifth Road has set up a computerized contact lens examination and prescription center. Foreign cooperation in opening maintenance and repair service businesses requires small investment of capital, produces results quickly, and provides large benefits.

The Municipal financial and trade system is also giving attention to use of advanced foreign technology to improve upon commercially operated industries, giving new life to some old enterprises. The Yongcheng Bedding Cooperative belonging to the Municipal Textile Company possessed only simple equipment and its production methods were backward. It has since introduced advanced clothing processing technology, valued at 700,000 Hong Kong dollars, to establish a clothing production assembly line of a certain size, rapidly transforming the enterprise's backward condition.

While giving attention to supplying the domestic market, the municipal financial and trade departments have actively worked with foreign trade departments in efforts to expand exports. The Municipal Supply and Marketing Trust trade warehouse alone supplied 15,000 tons of dried fruits and miscellaneous foodstuffs outside of plan to foreign trade units during the past year, producing more than \$5 million in foreign exchange. Goods purchased for trade supplied to foreign trade units by the financial and trade system have steadily increased. In 1980 goods purchased for supply to foreign trade units amounted to more than 73 million yuan, a 32.8 percent increase over 1979. Goods purchased for export between January and May this year amounted to 38.11 million yuan, for a 17.7 percent increase over the same period last year.

Municipal finance and trade units have also worked hard on supplying foreign markets and supplying overseas Chinese goods. In recent years, the Guangzhou Friendship Company's, the Foreign Ship Supply Company's, and the Overseas Chinese Goods Supply Company's business has multiplied, while at the same time international tourism and international advertising has steadily developed, thereby creating more foreign exchange for the country. According to incomplete statistics, foreign exchange created by the municipal finance and trade system during 1980 amounted to more than \$26 million (exclusive of earnings from overseas Chinese remittances).

In accordance with overall actions taken in readjustment of the national economy, the municipal finance and trade units have closely linked development of foreign economic work and enlivening of domestic markets. During the past year or more, they have used local foreign exchange and their own outlays of foreign exchange to import raw materials and goods that are urgently needed in China to support industrial and agricultural production, and to increase the supply of goods so that the state could get back a large amount of currency and increase revenues.

FOREIGN TRADE

GUANGDONG LEADER RELAYS CENTRAL VIEWS ON SPECIAL ZONES

HK010203 Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 31 Jul 81

[Text] Following the fourth enlarged plenary session of the fourth Guangdong provincial CCP committee, the provincial CCP committee held a forum of prefectural and municipal CCP secretaries from 27 to 29 July to convey, study and implement the spirit of the recent central work conference on Guangdong and Fujian Provinces and on the special economic zones. The forum held: At present, while seriously studying and implementing the spirit of the sixth plenary session, we must in connection study and implement well the spirit of the central conference, continue to carry out the special policies and flexible measures in light of the province's reality, open up to the outside world, relax the internal policies, hand down power to the lower levels, and boldly carry out reforms, to make the province's economy still livelier and do still better in building the special zones.

Provincial CCP committee First Secretary Ren Zhongyi presided at the forum. Provincial CCP committee Secretary Liu Tianfu conveyed the spirit of the conference convened by the State Council on Guangdong and Fujian Provinces and on the special economic zones. He said: This meeting fully affirmed the achievements of Guangdong and Fujian Provinces in the past 2 years in implementing the special policies and flexible measures stipulated by the central authorities. The State Council conference pointed out: Practice has proven that the central policy decision to institute special policies and flexible measures in Guangdong and Fujian Provinces and to set up special economic zones there is correct. This State Council meeting also briefly summarized the main contents of the special policies and flexible measures instituted in the two provinces, as follows: 1) open up still more to the outside world. This includes actively making use of overseas Chinese and foreign investment, introducing and using advanced technology and scientific management methods and expanding foreign trade; 2) relax the internal policies more. This includes permitting the coexistence of many types of economic components under the leadership of the socialist economy, making better use of the law of values and various economic levers and making the economy still more lively; 3) expand the powers of the two provinces, including their powers in economic matters, personnel, and local legislation, and enterprise decisionmaking powers. This in brief means opening up to the outside world, relaxing the internal policies, and handing down power to the lower levels. This demands bringing the superior features of the two provinces into play and speeding up their construction, so that the two provinces can become rich before others and also probe experiences for reforming the economic system in the whole country.

The forum initially studied the guiding ideology and demands for implementing the spirit of the State Council conference in Guangdong:

1. It is necessary to be bold in experimenting and pioneering new things. At present the whole country is carrying out reforms of the system, and Guangdong must advance ahead of the others and strive to accomplish modernization a bit earlier than other places.

2. It is necessary to overcome bureaucratism. Stress must be on efficiency in our action. As the central authorities have expanded Guangdong's powers, we must be skillful in using them. We must in all cases improve our work efficiency, whether in seeking instructions on work from higher authority, or in carrying out external economic dealings, or in cooperating with fraternal provinces and municipalities. Approval, action, and results must be swift.

3. It is necessary to act with caution, bear the whole situation in mind, and pay attention to the effects of our work, so that the central authorities can feel at ease. In the course of using the special policies and flexible measures stipulated by the central authorities and in running the special economic zones, we must take account of the interests of the state, the collective and the individual and also of our neighbors. Our main way of striving to become rich before others is to develop production and foreign trade. On the basis of developing production we should enable the masses to increase income and make our market supplies more abundant. We must take resolute action to oppose graft and corruption. We must stress trust and socialist business morality, and oppose vicious behavior of resorting to unscrupulous methods in order to make money.

4. The special economic zones must be run strictly according to the orientation of modernization. The organs there must be streamlined and highly efficient. There should not be too many members in their leadership groups, and limits should be set regarding the numbers and age of their leading cadres, who should also have a relatively high cultural level.

The forum held: Further implementing the special policies and flexible measures and running the special economic zones well is the business of the whole province. All areas and departments must be concerned for this work. All work must conform to this endeavor. All levels of the province must take positive action, get their brains working, come up with schemes and methods, and study specific measures for implementing them in their own areas and units in connection with reality.

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LABOR AND WAGES

NEW WAGE SCALE, BENEFITS FOR GUANGZHOU SANITATION WORKERS

Guangzhou GUANGZHOU RIBAO in Chinese 7 Jul 81 p 1

[Article by Yu Hua [3768 5478]: "Improvement in Environmental Sanitation Workers Wages and Welfare Benefits; Municipal Revolutionary Committee Approves Increases in Wages for about 6,000 Environmental Sanitation Workers Beginning from January This Year; Monthly Per Capital Increases To Average More Than 8 Yuan Per Month; Simultaneous Institution of Environmental Sanitation Subsidies"]

[Text] The Municipal Revolutionary Committee today approved improvements in sanitation worker wages and welfare benefits. This will mean an average 8 yuan per month more for the city's more than 6,000 environmental workers. Environmental sanitation subsidies will be instituted simultaneously. These measures are to take effect from 1 January 1981.

The cleanup workers, nightsoil collectors, and ash and garbage collectors, who constitute the environmental sanitation workers of Guangzhou, work with great intensity, frequently laboring day and night. For years their wages have tended to be low. Not long ago, the Municipal Revolutionary Committee undertook a study of the question of improvement in environmental workers' wages and welfare benefits. A leading comrade in charge at the Municipal Revolutionary Committee said, "All departments concerned should urgently implement gradual increases in the political and economic benefits of environmental sanitation workers." All year long, municipal departments concerned have repeatedly investigated and studied this problem to formulate a specific plan. Today the Municipal Revolutionary Committee formally approved its implementation. The four provisions of this plan are as follows:

1. Prevailing wage standards for environmental sanitation cleanup workers under the system of ownership by all the people, nightsoil collectors, street sweepers, and ash and garbage collectors in all districts should gradually make a transition to the wage standards applying to construction workers. The prevailing grade 4 wages paid cleanup workers under the system of ownership by all the people, and paid nightsoil collectors and street coal ash and garbage collections under the system of ownership by the collective should be made into the grade 4 wages paid construction workers. The prevailing grade 5 environmental sanitation cleanup workers, nightsoil collectors, street sweepers, coal ash and garbage collectors should be paid at the 4.5 scale for construction workers. Grade 6 environmental sanitation cleanup workers and nightsoil collectors should be paid at the grade 5

construction worker rate. Environmental sanitation cleanup workers at grade 7 should be paid at grade 5.5 construction worker rate. Grade 4 and grade 5 street cleanup workers should be paid at the grade 3.5 and grade 4 construction worker rates respectively. After being blanketed into the construction worker wage scale, existing supplemental wages will no longer be paid.

2. Benefits for those engaged in labor requiring strenuous physical exertion, as follows: All new workers will have grades assigned in accordance with wage standards for construction workers, and will be paid at the grade 1 level during the first 6 months on the job. Following completion of a year on the job, they will be paid wages at the grade 2 level. After 2 years on the job, and provided they have performed competently, they will receive grade 3 wages.

3. The proportion of award money that may be collected by environmental sanitation workers under the system of ownership by all the people will be increased from the existing 10 percent of wages to 12 percent of wages. So long as it does not exceed 12 percent of total wages, amount of award money paid to nightsoil collector and street environmental sanitation crews in all districts may be decided on the basis of individual income.

4. Cancellation of prevailing health subsidies and institution of environmental sanitation subsidies. Depending on the type of work done, this is to be paid at a rate of 0.20, 0.30, 0.40, 0.50, and 0.60 yuan per person per day.

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